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ARMED SERVICE REGULATIONS
UNITED STATES ARMY

1905 (AMENDED, 1908)

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Field Service Regulations United States Army

1905

With Amendments to 1908

Prepared by the General Staff
under the direction of the Chief of Staff, U. S. Army

Published by authority of the Secretary of War



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WAR DEPARTMENT,
Washington, February 1, 1905.

The following Field Service Regulations, prepared by the General Staff, under the direction of the Chief of Staff of the Army, have been approved by the President, and are herewith published for the information and government of the Army of the United States and for the observance of the organized militia of the United States.

Wm. H. TAFT,
Secretary of War.

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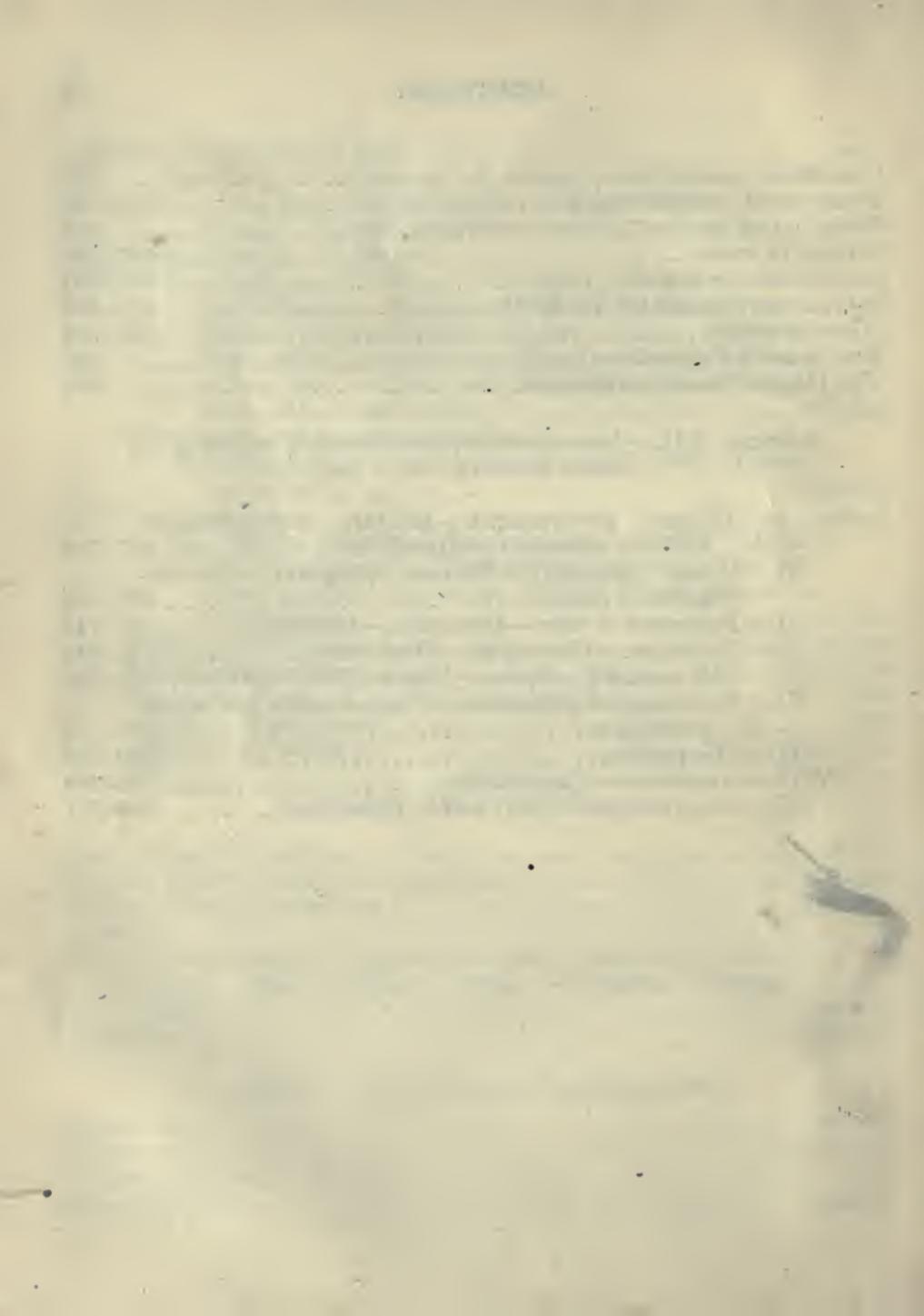
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FIELD SERVICE REGULATIONS. U. S. ARMY.

ARTICLE I.

ORGANIZATION.

LAND FORCES OF THE UNITED STATES.

1. The militia consists of all the able-bodied male citizens of the respective States, Territories, and the District of Columbia (including males of foreign birth who have declared intention to become citizens) between the ages of 18 and 45 years. This body, from which the land and naval forces of the United States are drawn, is divided into two classes—the *organized* militia of the several States, Territories, and the District of Columbia, and the *reserve* militia. Persons in the military or naval service of the United States are exempt from militia duty.
2. The organized land forces of the United States, in peace and in war, consist of the Army of the United States and of the organized militia when called into the service of the United States. In time of peace the Army of the United States consists of the Regular Army, which is the permanent establishment; in time of war it consists of the Regular Army and the Volunteer Army, the latter being maintained only during the existence of war or while war is imminent.

UNITS OF ORGANIZATION.

3. In time of peace the largest permanent unit is generally the regiment, but when authorized by the President, brigades and divisions composed of organizations of the Regular Army, or of the militia, or of both, may be organized for the purpose of instruction. Such brigades and divisions to be organized as follows:
A brigade to consist of two or more regiments of infantry, three being the normal organization.

A division to consist of—

- ✓ 3 brigades of infantry,
- ✓ 1 regiment of cavalry,
- ✓ 2 regiments of field artillery, organized as a brigade,
- ✓ 1 battalion of engineers,
- ✓ 1 company of signal corps,
- ✓ 4 field hospitals,
- ✓ 1 ammunition column,
- ✓ 1 supply column, and
- ✓ 1 pack train.

A cavalry brigade to consist of two or three regiments, three being the normal organization; when acting independently one battalion of horse artillery to be attached.

A cavalry division to consist of—

- 3 brigades of cavalry,
- 1 regiment of horse artillery,
- 1 company of engineers (mounted),
- 1 company of signal corps (mounted),
- 1 ammunition column,
- 1 supply column, and
- 2 field hospitals (with light transportation).

In the discretion of the President, the composition of the units mentioned hereinbefore may be varied whenever in his judgment the public interests so require.

The normal staffs for the brigades and divisions mentioned in this paragraph will be as follows:

For a division—

- 1 chief of staff, colonel.
- 1 adjutant-general, lieutenant-colonel.
- 1 inspector-general, lieutenant-colonel.
- 1 judge-advocate, lieutenant-colonel.
- 1 chief quartermaster, lieutenant-colonel.
- 1 chief commissary, lieutenant-colonel.
- 1 chief surgeon, lieutenant-colonel.
- 1 chief engineer, lieutenant-colonel.
- 1 chief ordnance officer, lieutenant-colonel.
- 1 chief signal officer, lieutenant-colonel.
- 3 aids, captains or lieutenants.

For a brigade—

- 1 adjutant-general, major.
- 1 quartermaster, major.
- 1 commissary, major.
- 1 surgeon, major.
- 2 aids, lieutenants.

In addition to the staff officers mentioned in this paragraph and their necessary assistants, such other staff officers may be detailed and are authorized as may be deemed desirable for the proper administration of a command.

When smaller units than are herein provided for are brought together in time of peace, suitable staffs may be detailed therefor. [125482, A. G. O.]

4. In time of war, or when war is imminent, troops in the service of the United States, whether belonging to the Regular or Volunteer Army, or to the militia, will be organized, as far as practicable, into divisions of three brigades, each brigade to be composed of three or more regiments.

Whenever three or more divisions are assembled in the same army, the President is authorized to organize them into army corps, each corps to consist of not more than three divisions.

The horse batteries of the division may be combined into a separate command, and as corps artillery remain under direct control of the corps commander.

When several army corps are united under the command of one chief they constitute an army. One or more cavalry divisions usually form part of such an organization.

5. Brigades in divisions and divisions in army corps receive numerical designations upon organization; for example, "first brigade, second division," "third division, fourth army corps."

Army corps are organized only by special authority from the President, and are numbered in the sequence of the dates of their organization.

Separate armies receive territorial designations.

6. The division is both a tactical and an administrative unit. In matters relating to courts-martial, the supply service, and money and property accountability, the administrative control vested in commanders of territorial departments devolves, in the field, upon division commanders, under the orders of the commanding general of the army or department.

Commanders of separate brigades have the powers of division commanders when the troops under their command have been officially designated in orders from department or army headquarters as constituting "a separate brigade."

7. The division forms the basis of army organization. It should be complete in all its parts and capable of acting independently at any time. When brigades are detached they will be supplied with the due proportion of the auxiliary arms and services corresponding to their independent functions and the nature of the special service expected.

8. In time of war the assignment of regiments to brigades, brigades to divisions, divisions to army corps, and army corps and cavalry divisions to armies, with names of commanders and the higher staff officers, will be published in *tables of organization* emanating from the War Department under authority of the President. Such arrangement will not be changed by subordinate authority except temporarily, and then only for cogent reasons.

As the troops arrive at rendezvous they will be assigned to the places indicated in the table of organization.

9. In time of war when the land forces of the United States are organized into brigades, divisions, army corps, and cavalry divisions, a list and description of the symbols, flags, pennants, and badges by which these units shall be distinguished will be published by the War Department.

COMMANDERS AND STAFF.

10. The commanders of army corps and of separate armies are designated by the President. When two or more armies are combined under the direction of one commander he will be distinguished by the title of *general in chief*.

In case of death or disability of the commanding general of an army or corps the next in rank shall exercise command until the will of the President be known.

11. All military units larger than a company are provided with staffs of commissioned officers, whose number and rank increase with the size of the command. In units larger than a brigade, and in separate forces commanded by a general officer, the staff service is under the supervision of an officer of the general staff designated as *chief of staff*.

12. The *military staff* of the commanding general of an army will consist of the *aids* authorized by law (personal staff), the chief of staff, officers of the General Staff, the Adjutant-General's and Inspector-General's Departments, the chiefs of artillery, cavalry, engineers, and signal corps, and a provost-marshal-general. The *administrative staff* will consist of superior officers of the Quartermaster's, Subsistence, Pay, Medical, Ordnance, and Judge-Advocate-General's Departments, with such subordinate officers as may be required.

13. The commanding officer, his staff, and the *personnel attached* thereto constitute the *headquarters* of a military command.

An officer detailed as commander of the *headquarters guard* of an army, corps, or division is vested with authority to establish, arrange, and command the *headquarters camp* and to place the posts

and guards. He will direct the movements of and furnish the escort for the headquarters train, and in cooperation with the provost-marshall preserve order at headquarters.

14. The chief of staff of an army should enjoy the complete confidence of the commanding general and a considerable degree of independence in the performance of his ordinary duties. He organizes and supervises the operations of all the staff departments and regulates the details thereof by means of orders issued in the name of the commanding general. In all matters the wishes and directions of the commanding general, either expressed or implied, must form the basis of action by the chief of staff. It is the duty of the latter to bring to the notice of the commanding general all matters requiring attention, and, when called upon, to indicate the action he deems necessary or desirable.

The chief of staff, after working out the necessary details, converts the ideas and decisions of the commanding general into orders or instructions, conveys them to the troops, and sees that they are executed. In these duties he is assisted by such officers of the General Staff, of the Adjutant-General's Department, and Inspector-General's Department as may be necessary.

He elaborates the arrangements for exploration and protection, and for the marching, fighting, and camping or quartering of the troops, establishes a service of information concerning the theater of war and the enemy's forces, collects important material for reports of operations and subsequent history of the war, and exercises a general supervision over all records and returns and the supply of suitable maps. He should be informed at all times as to the state of supplies and the strength, armament, equipment, health, marching powers, and morale of the troops and be prepared to render a report thereon. He issues instructions to the provost-marshall-general and to the general commanding the base and line of communications of the army, draws up the orders for special reconnaissances, raids, and detached service, and administers through intelligence officers, the intelligence service, which comprises within its functions the field post-office, the secret service, the subject of reconnaissance and the collection, preparation, and distribution of military information, including maps and sketches. He performs such special functions as may be delegated to him by the commanding general.

The duties of chief of staff of a corps and of smaller commands are similar to those detailed above.

15. The chiefs of the administrative services will organize the administration of their respective services and exercise the super-

vision over details necessary to secure efficiency. While the provision and distribution of necessary supplies constitutes one of the responsibilities of a commanding general, who will issue orders and instructions of a general nature on the subject, the means and methods of obtaining and distributing such supplies are looked after by the chiefs of the several administrative services, whose duties are performed in conformity with prescribed regulations.

Chiefs of the administrative services will render reports, through military channels, to their bureaus in the War Department, furnishing prompt and full information as to the present and prospective needs of the army, with such suggestions for the improvement of the efficiency of their service as may require the action of higher authority.

16. In time of war there will be attached to the headquarters of each army or army corps a mustering officer, and to each division or separate brigade an assistant mustering officer, whose duty it shall be to make all musters into and out of the military service, to give any information upon the subject of musters that may be needed by officers serving in the command to which he is attached, and to exercise such supervision over the preparation of the regular muster and pay rolls as will secure their uniformity, accuracy, and completeness. He will conduct the business of his office and will render reports and returns thereof in accordance with such instructions as may be prescribed from time to time in orders from the War Department.

17. A provost-marshall-general will be attached to the headquarters of an army. He will have under his command the force necessary to preserve proper police throughout the army and on the lines of communications. He will protect the inhabitants of the country from pillage and violence; keep a list and description of all nonmilitary persons and camp followers and watch their conduct; follow the column on the march and bring up stragglers, arrest skulkers and fugitives from the battlefield, and take charge of all prisoners of war and deserters from the enemy. He will receive his orders through the chief of staff, and make such written reports as may be required.

18. In time of war provost-marshals will be assigned to headquarters of army corps and divisions and to the line of communications, with such assistants and troops as may be necessary. Their duties are similar to those of the provost-marshall-general, and they receive their orders from the corps or division commanders or from the commanding general of the base and line of communications.

19. The engineer troops attached to an army, a corps, a division, or a detachment shall be under command of the senior engineer

Officer on duty with such engineer troops. This officer shall keep the chief of staff fully informed as to the state of the work on which they may be engaged, and as to the condition of the engineer troops and their equipment, and shall have charge of all the engineer transportation connected with the unit to which his command is attached.

20. Officers of artillery and engineers are prohibited from communicating any information as to the state of material and stores under their charge, or as to plans of positions, or works executed or to be executed under their direction, except to the commanding general and the general under whose immediate orders they are serving, their chiefs of staff, and the senior officers of engineers or artillery serving on the staffs of these generals.

21. The chief engineer of an army or army corps and the engineer officers of divisions are staff officers; they exercise general supervision over engineer operations in the body to which they are attached but shall not exercise direct command of engineer troops; they will make such inspections as may be ordered by their commanding generals and will submit their recommendations and suggestions to their chiefs of staff.

22. The duties of the chief engineer of an army are, in general, as follows: He shall furnish all engineering information desired by his commanding general; he may be called upon to assist in the selection of lines of attack or of positions for defense; he supervises the location and design of the more important fieldworks and may be charged with their construction; he is in general charge of the engineering features of all siege operations unless another officer is specially designated for that purpose; he is responsible for the construction or repair of military roads and bridges, and for the construction, repair and operation of railroads in the theater of operations; he will execute the demolitions required by the general instructions or specific orders of the commanding general; to him may be assigned the selection and preparation of permanent camps, and any other duties requiring expert knowledge of an engineering nature. To carry out his duties he should have a sufficient force of military assistants, ample funds in his charge, and authority to employ necessary civilian labor and assistance.

The duties of engineer officers on the staffs of corps and division commanders are similar in all respects to those of the chief engineer of an army, differing only in scope and degree.

Requisitions for funds, disbursements, and care and disposal of property pertaining to work in charge of engineer or acting engineer

officers shall be subject to the regulations prescribed for the government of the Engineer Department.

23. The chief engineer of an army, and engineer officers on the staffs of corps or division commanders, will at the close of a campaign report through their commanding generals their operations, with all that concerns their specialty, to the headquarters of their corps in Washington. These reports will embrace plans of military works erected, and in case of siege operations will embrace the journals of attack or defense. Officers having command of engineer troops will in addition submit copies of the reports of battles, etc., rendered to the general under whom they serve, together with such special reports as may be necessary or useful for the records of the Engineer Corps.

BASES AND LINES OF COMMUNICATIONS.

24. For each territorial army or important expeditionary force about to take the field a base will be selected and equipped and a service of the line of communications organized, both to be under control of the commanding general of the field army or expedition, except when otherwise ordered by the War Department.

An officer of appropriate rank will be designated to the immediate command of the base and line of communications and the necessary troops and personnel will be placed under his orders. He will be aided by a suitable staff and by such of the following subordinate chiefs as may be required:

- (a) A commander at the base.
- (b) A chief of transportation.
- (c) A chief of the railway service.
- (d) A chief of transport by water.
- (e) A chief commissary of base and line of communications.
- (f) A chief ordnance officer.
- (g) A chief paymaster.
- (h) A chief medical officer.
- (i) A chief of telegraph and telephone service.
- (k) A provost-marshal of base and line of communications.

DETAILS OF ORGANIZATION.

25. The Regular Army of the United States consists of general officers, the General Staff Corps, an Adjutant-General's Department, an Inspector-General's Department, a Judge-Advocate-General's Department, a Quartermaster's Department, a Subsistence Department, a Medical Department, a Pay Department, a Corps of Engineers, an Ordnance Department, a Signal Corps, chaplains, regiments of cavalry, field artillery, and infantry, a Coast Artillery Corps, and such other officers and enlisted men as are provided for by law.

Regimental organization of cavalry, field artillery, and infantry:

INFANTRY.

A company. ^a

1 captain.
 1 first lieutenant.
 1 second lieutenant.
 1 first sergeant.
 1 quartermaster-sergeant.
 6 sergeants.
 10 corporals.
 2 cooks.
 2 musicians.
 1 artificer.
 105 privates.
 —
 128 total enlisted.

A battalion.

1 major.
 1 adjutant (first lieutenant).
 1 quartermaster and commissary
 (second lieutenant).
 1 sergeant-major.
 4 companies.

513 total enlisted.

A regiment.

1 colonel.
 1 lieutenant-colonel.
 1 adjutant (captain).
 1 quartermaster (captain).
 1 commissary (captain).
 1 sergeant-major.
 1 quartermaster-sergeant.
 1 commissary-sergeant.
 2 color sergeants.
 20 mounted orderlies.
 1 chief musician.
 1 principal musician.
 1 drum major.
 4 sergeants.
 8 corporals.
 1 cook.
 12 privates.
 3 battalions.

Band.

1,592 total enlisted.

Total commissioned, 50.

CAVALRY.

A troop. ^a

1 captain.
 1 first lieutenant.
 1 second lieutenant.
 1 first sergeant.
 1 quartermaster-sergeant.
 6 sergeants.
 8 corporals.
 2 cooks.
 2 farriers and blacksmiths.
 1 saddler.
 1 wagoner.
 2 trumpeters.
 76 privates.

100 total enlisted.

A squadron.

1 major.
 1 adjutant (first lieutenant).
 1 quartermaster and commissary
 (second lieutenant).
 1 sergeant-major.
 4 troops.

401 total enlisted.

A regiment.

1 colonel.
 1 lieutenant-colonel.
 1 adjutant (captain).
 1 quartermaster (captain).
 1 commissary (captain).
 2 veterinarians.
 1 sergeant-major.
 1 quartermaster-sergeant.
 1 commissary-sergeant.
 2 color sergeants.
 1 chief musician.
 1 chief trumpeter.
 1 principal musician.
 1 drum major.
 4 sergeants.
 8 corporals.
 1 cook.
 11 privates.
 3 squadrons.

Band.

1,236 total enlisted.

Total commissioned, 50.

^a NOTE.—The organization of the enlisted strength of companies of infantry, troops of cavalry, and batteries of light, siege, mountain, and horse artillery is announced in War Department orders from time to time.

FIELD ARTILLERY.

A battery (a).

1 captain.
 2 first lieutenants.
 2 second lieutenants.
 1 first sergeant.
 1 quartermaster-sergeant.
 1 stable sergeant.
 8 sergeants.
 16 corporals.
 3 cooks.
 1 chief mechanic.
 7 mechanics.
 3 musicians.
 149 privates.
 190 total enlisted.

A battalion.

1 major.
 1 adjutant (captain).
 1 quartermaster and commissary
 (lieutenant).
 1 sergeant-major.
 1 quartermaster-sergeant.
 3 batteries.

572 total enlisted.

a NOTE.—The organization of the enlisted strength of companies of infantry, troops of cavalry, and batteries of light, siege, mountain, and horse artillery is announced in War Department orders from time to time.

THE COAST ARTILLERY CORPS.

The coast artillery constitutes a corps and consists of a Chief of Coast Artillery; the authorized number of colonels, lieutenant-colonels, majors, captains, first lieutenants, and second lieutenants to provide officers for the tactical units of the Coast Artillery Corps, viz: The artillery district, the battle command, the fire command, the mine command, and the battery; the Coast Artillery Corps non-commissioned staff officers, and the authorized number of Coast Artillery Corps companies.

A regiment.

1 colonel.
 1 lieutenant-colonel.
 1 adjutant (captain).
 1 quartermaster (captain).
 1 commissary (captain).
 2 veterinarians.
 1 sergeant-major.
 1 quartermaster-sergeant.
 1 commissary-sergeant.
 2 color sergeants.
 9 mounted orderlies.
 1 chief musician.
 1 chief trumpeter.
 1 principal musician.
 1 drum major.
 4 sergeants.
 8 corporals.
 1 cook.
 11 privates.

2 battalions.

1,186 total enlisted.
 Total commissioned, 41.

Band.

The Coast Artillery Corps noncommissioned staff officers consist of—

- Sergeants-major, senior grade. ✓
- Master electricians. ✓
- Engineers. ✓
- Electrician sergeants, first class. ✓
- Electrician sergeants, second class. ✓
- Master gunners. ✓
- Sergeants-major, junior grade. ✓
- Firemen. ✓

A company—

- 1 captain, ✓
- 1 first lieutenant, ✓
- 1 second lieutenant, ✓
- 1 first sergeant, ✓
- 1 quartermaster-sergeant, ✓
- 2 cooks, ✓
- 2 mechanics, ✓
- 2 musicians, ✓

and such number of sergeants, corporals, and privates as may be fixed by the President in accordance with the requirements of the service to which a company may be assigned, but the minimum number of sergeants, corporals, and privates in a Coast Artillery Corps company is fixed as follows:

4 sergeants.	}
6 corporals.	
45 privates.	

63 total minimum enlisted.

One chaplain for each regiment of cavalry, field artillery, and infantry, and one for every twelve companies of the Coast Artillery Corps are authorized.

STAFF CORPS ORGANIZATIONS.

The General Staff Corps is composed of officers of the Army of the grades and number authorized by law, and detailed for service in that corps for a period of four years, unless sooner relieved.

The Adjutant-General's Department, the Inspector-General's Department, the Judge-Advocate-General's Department, and the Pay Department consist of such commissioned officers as are authorized by law.

ORGANIZATION.

The Quartermaster's Department, the Subsistence Department, and the Ordnance Department consist of such commissioned officers and enlisted men as are authorized by law.

THE CORPS OF ENGINEERS.

The Corps of Engineers consists of such commissioned officers and enlisted men as are authorized by law.

The enlisted men of the Corps of Engineers are organized into battalions:

ENGINEER BATTALION.

A pioneer company.

1 captain, mounted.	Mounted.
1 first lieutenant, mounted.	
1 first lieutenant.	
1 second lieutenant.	
1 first sergeant.	
1 quartermaster sergeant.	
2 sergeants.	
3 corporals.	
1 cook.	
9 privates, first class.	
9 privates, second class.	
10 sergeants.	
15 corporals.	
1 cook.	
2 musicians.	
55 privates, first class.	
55 privates, second class.	

164 total enlisted.

A battalion.

1 major.	4 companies.
1 adjutant.	
1 quartermaster and commissary.	
1 sergeant-major.	
1 quartermaster-sergeant.	
658 total enlisted.	

Engineer troops assigned to a division consist normally of a battalion of four companies, namely, three pioneer companies, one pontoon company.

In the field each pioneer company will have 4 pack mules and 2 wagons for the purpose of carrying intrenching tools, explosives, etc.

The organization of a pontoon company will be the same as for a pioneer company, except that the mounted detachment will consist of 2 sergeants and 3 corporals.

SIGNAL CORPS.

The Signal Corps consists of a Chief Signal Officer and the authorized number of colonels, lieutenant-colonels, majors, captains, first lieutenants, master signal electricians, first-class sergeants, sergeants, corporals, first-class privates, privates, and cooks.

For the purpose of administration, Signal Corps companies may be organized, and the strength and composition of such companies will depend upon the requirements of the service to which a company may be assigned.

A company assigned to a division in the field is normally organized as follows:

- 1 captain.
- 3 first lieutenants.
- 1 sergeant, acting as first sergeant.
- 1 sergeant, acting as quartermaster-sergeant.
- 20 sergeants, first class.
- 40 sergeants.
- 10 corporals.
- 74 privates.
- 4 cooks.

150 total enlisted.

A detachment of the company will have charge of visual signaling with flag, torch, flash light, and heliograph. The remainder of the company will have charge of the construction, repair, and operation of telegraph and telephone lines at the front and on the line of communication, connecting with civil lines, and of the establishment and operation of wireless-telegraph stations.

MEDICAL DEPARTMENT.

The Medical Department consists of a Surgeon-General and the authorized number of colonels, lieutenant-colonels, majors, captains, and first lieutenants; a Hospital Corps, consisting of sergeants, first class; sergeants; corporals; privates, first class; and privates; and a Nurse Corps. To provide for the necessary medical service in the field, officers of the Medical Department and enlisted men of the Hospital Corps will be assigned as follows:

For division headquarters—

- 1 lieutenant-colonel (chief surgeon).
- 1 lieutenant-colonel or major (medical inspector).
- 1 captain or lieutenant.
- 1 sergeant, first class.
- 4 privates, first class.
- 2 privates.

For brigade headquarters—

- 1 major.
- 1 sergeant.
- 1 private, first class.
- 1 private.

For a field hospital—

- 1 major.
- 2 captains.
- 4 lieutenants.
- 1 sergeant, first class.
- 2 sergeants.
- 5 privates, first class.

Hospital section—

- 1 sergeant, first class.
- 4 sergeants.
- 27 privates, first class.
- 9 privates.

Ambulance company section—

- 1 sergeant, first class.
- 7 sergeants.
- 25 privates, first class.
- 36 privates.

Total enlisted for a field hospital, 118.

Transportation for a field hospital—

- 10 ambulances.
- 8 escort wagons.
- 4 pack mules.

For a regiment of cavalry, field artillery, or infantry—

- 1 major.
- 1 captain or lieutenant for each battalion or squadron.
- 1 sergeant, first class.
- 2 sergeants.
- 6 privates, first class.
- 3 privates.

Transportation, 1 escort wagon.

For a battalion of infantry or field artillery or a squadron of cavalry, acting independently—

- 1 captain or lieutenant.
- 1 sergeant.
- 2 privates, first class.
- 1 private.

For a battalion of engineers—

- 1 captain.
- 1 lieutenant.
- 2 sergeants.
- 2 privates, first class.
- 4 privates.

For a Signal Corps company—

- 1 captain or lieutenant.
- 1 sergeant.
- 1 private, first class.

The following enlisted men of the Hospital Corps, mentioned hereinbefore, will be mounted:

Division headquarters—

- 1 sergeant, first class.
- 3 privates, first class, orderlies.

Brigade headquarters—

- 1 sergeant.
- 1 private, first class, orderly.

Regiment of infantry—

- 1 sergeant, first class.
- 2 sergeants.
- 4 privates, first class, orderlies.

Regiment of cavalry, 11.

Regiment of field artillery, 10.

Battalion of infantry, acting independently—

- 1 sergeant.
- 1 private, first class, orderly.

Squadron of cavalry, acting independently, 4.

Battalion of field artillery, acting independently, 4.

Battalion of Engineers—

- 2 sergeants.
- 2 privates, first class, orderlies.

Signal Corps company—

- 1 sergeant.
- 1 private, first class, orderly.

Field hospital—

- 1 sergeant, first class.
- 2 sergeants, assistant to quartermaster.
- 1 sergeant, wagon master.
- 3 privates, first class, orderlies.

Hospital section—

1 sergeant, first class.

1 private, first class, musician.

Ambulance company section—

1 sergeant, first class.

7 sergeants.

2 privates, first class, orderlies.

1 private, first class, musician.

TRANSPORTATION UNITS.

A wagon train.

1 wagon master.
 2 assistant wagon masters.
 1 farrier and blacksmith.
 1 cook.
 1 watchman.
 28 teamsters.
 112 draft mules.
 5 saddle mules.
 27 wagons.

34 total personnel.*A pack train.*

1 pack master.
 1 cargador.
 1 farrier and blacksmith.
 1 cook.
 10 packers..
 14 saddle mules.
 50 pack mules.
 1 bell mare.

14 total personnel.

26. Paragraph 26 rescinded by General Orders No. 146, War Department, 1907.



ARTICLE II.

ORDERS.

GENERAL PRINCIPLES.

27. A military order is the expression of the will of a chief conveyed to subordinates.

28. The art of giving proper directions and orders to troops is one of the most important features in the exercise of command.

29. The higher the position of the commander, the more general in character will his orders be. At the beginning of operations, and from time to time thereafter, the plans and intentions of the supreme authority will probably be communicated in the form of *letters of instructions*. These regulate movements over a large area and for considerable periods of time.

30. As soon as it becomes necessary to prescribe matters of detail, orders are issued; for example, orders for a march or for the formation of a camp, bivouac, or cantonment; orders for attack or defense; orders for advance guard, rear guard, or outposts; or orders after a battle.

31. Orders are issued verbally or in writing. Verbal orders may be delivered in person, or they may be sent by staff officers. When the officers concerned can be assembled readily, orders may be given in person or by a staff officer, but even then orders of some importance or length should be dictated. For simple details or a single service a verbal order, or a command or signal will often be sufficient.

For commands which are scattered, or larger than a division, the written or telegraphic order will be the rule.

The sending of verbal orders conveyed by orderlies should be avoided, whether in garrison, in the field, or in campaign. In matters of importance it will be resorted to only in cases of necessity, bearing in mind that there is always a possibility of controversy as to the exact wording of the order. Such an order should therefore not contain more than one definite point; for example, "The regiment will halt for three hours at ____." More latitude may be allowed in sending verbal orders by officers.

The bearer of a verbal order or message should invariably repeat the same before starting off. Orderlies will be instructed to do so habitually.

32. The written orders of commanders of regiments or larger units, and of posts, districts, territorial departments or divisions, are denominated "general orders" or "special orders" according to character; orders of smaller units are simply called "orders." They are numbered in separate series, beginning with the year, or with the establishment or organization of a new command.

33. General orders publish information or instructions to the whole command; special orders relate to individuals or matters not of general application.

Circulars are numbered in separate series; they have the force of orders when they convey mandates or instructions.

An order may also be placed in the form of an official letter addressed to the individual concerned, or it may be simply a note. However informally the will of the commander may be expressed, it should be cheerfully and promptly complied with.

34. An order will state at its head the source from which it emanates, its number, date, and place of issue; in the field the hour of issue should generally be stated.

Dates should be abbreviated in the manner employed in the Army Register; for example, 20 Nov. 95, 7 Feb. 99, 3 Mar. 03. In referring to a night, mention both days, thus, night 19/20 November. The words *noon* and *midnight* should be written out in full.

35. In campaign, orders relating to operations will, in addition to the prescribed heading, bear the caption "Field Orders," and will be numbered in a separate series; for example:

FIELD ORDERS	}	HEADQUARTERS SECOND DIVISION,
No. 173.		EIGHTH ARMY CORPS,
* *	San Fernando, Luzon, P. I., 8 Aug. 99, 8.30 p. m.	*

The originals of such orders will be carefully preserved for future reference and as a basis for formal reports of operations.

THE COMPOSITION OF ORDERS.

36. In the deliberations leading up to a decision the commanding officer will be guided, in the first instance, by the orders or instructions he may have received from higher authority; then, information of various degrees of reliability as to the enemy and the theater of operations, supplemented by inferences or conjectures of more or less doubtful nature, will be taken into account. He should satisfy himself completely as to the kind of action required by the military situation, whether advance, retreat, attack, defense, or a state of readiness is demanded. The enemy's situation should next receive consideration, what he is doing, what his strength and condition are, what action he could take. When reliable information

is lacking, it is safe to assume that the enemy will act with good judgment. Finally, the relation which the problem confronting the command bears to the general military situation, whether of an independent character or connected with operations on other theaters of war, must not be lost sight of.

37. Having arrived at a perfectly definite decision as to the course of action to be pursued, the commander will make a careful study of the maps available, especially with reference to roads, calculate the time necessary for his own and the enemy's troops to reach important points, and proceed to draw up the orders.

38. Orders should be divided into numbered paragraphs, corresponding matter being assembled under the same number.

The wording of an order must be so clear and intelligible as to leave no opening for mistakes. Expressions depending for their signification upon the point of view of the observer, such as *right*, *left*, *in front of*, *behind*, *on this side*, *beyond*, are to be avoided, reference being made to the points of the compass instead. The terms *right* or *left* may, however, be applied to individuals or bodies of men, or to the banks of a flowing body of water; in the latter case the observer is supposed to be facing downstream.

For the sake of precision the pronunciation of foreign or other proper names not conforming to the spelling may be shown phonetically in parenthesis; thus, Bicester (Bister), Gila (Hee'-lah).

When two or more places or features on the map have the same name they must be connected with other points.

A road is designated by connecting two or more names of places on the road with dashes, thus, "Lima—Spencerville road."

The writing must be so distinct as to be legible even in bad light.

39. Orders should be brief; short sentences are easily understood. Conjectures, expectations, reasons for measures adopted and detailed prescriptions for a variety of possible events are little calculated to raise the confidence of troops, and should therefore be omitted.

40. Orders must not be couched in uncertain terms. The commander should accept the entire responsibility and shift none of it to the shoulders of his subordinates. Precise orders give confidence in dangerous undertakings. The more difficult the situation, the clearer and more definite must the order be.

41. An order should not trespass on the province of a subordinate. It should contain everything which is beyond the independent authority of the subordinate, but nothing more. When the transmission of orders requires a considerable period of time during which the situation may change, detailed instructions should be avoided. The same rule holds good when an order may have to be carried

out under circumstances which the originator of the order can not completely forecast; in such cases a letter of guidance is more appropriate. It should lay stress upon *the object to be attained*, and leave open the means to be employed.

42. Orders should not attempt to arrange matters too far in advance, for counter measures of the enemy and unexpected contingencies will often make it necessary to recall the original orders and substitute others. Frequent changes weary the men, shake their confidence in their commander, and tend to make subordinates uncertain in their action.

43. The particulars of time and place must be stated so precisely that error will be inexcusable. It is important that an excellent timepiece be kept at headquarters and that commanders or staff officers of subordinate units set their watches by it.

44. The orders of a subordinate should not be a mere repetition of those from higher authority, with additions tacked on. It will be clearer, and serve the purpose better, to write an independent order. However, when large bodies of troops are working together, the orders of the smaller units will usually be based on the divisional orders.

Arrangements for a possible retreat should be communicated only to the officer next in rank, and always confidentially.

45. While it is impossible to devise a general plan providing for all the contingencies likely to arise, it will be of advantage to follow certain general principles in regard to the form of orders. In orders prescribing operations the following sequence is recommended:

1. Information concerning the enemy and our own troops in the vicinity.
2. Intentions of the commanding officer.
3. Duties of the various fractions of the command.
4. Orders for baggage trains and ammunition columns.
5. Location of the commander at the beginning of the operations; also, when necessary, place for delivering messages.

The distribution of troops is stated in the margin, when necessary, under the heading "Troops." The name of the commander of each fraction, and the units composing it, should be specified. No commander is detailed for the main body because the commander of the whole force generally assumes that duty. When the sequence of march of the main body is placed in the order, the heading is supplemented by the words "in order of march." The arrangement of troops in advance guards, flank guards, and rear guards would appear in the orders of the officers designated to command these fractions.

46. An order will state at its foot the name of the commander by whose authority it is issued.

It may be authenticated by the signature of the commanding officer, but usually it is signed by the adjutant, adjutant general, or chief of staff.

47. Under the order note briefly the manner in which it was communicated; for example,

dictated, for example,
"Dictated to Adjutants."

"Copies to regimental and battery commanders and to chiefs of staff departments."

Example of an Order Issued during a Halt on the Road, before the Completion of a Day's March.

FIELD ORDERS } HEADQUARTERS THIRD DIVISION,
No. 3. } FOURTH ARMY CORPS,
Allentown, Pa., 3 May 02, 2.15 p. m.

1. No further information concerning the enemy has been received; it is believed that he is still in camp at Wellsville.

2. This command will rest two days, the 4th and 5th of May, and then resume the advance.

3. The camp for to-night will be on the east bank of Beaver Creek, the leading regiment of the main body halting just south of Beeville. The order in which the troops marched will be preserved as far as practicable.

4. The reserve of the advance guard will bivouac at Elliston's farm. Temporary outposts will be established along the line Belle-vue-Jackson-Fielding's. Cavalry patrols will scout through the Berkeley hills.

5. The regimental trains will join the troops; the other trains will park east of Kernstown.

6. Division headquarters will be at the schoolhouse in Beeville. Outpost orders will be issued at 3 p. m. to-day.

By command of Major-General N.....:

A..... F.....,
Chief of Staff.

Copies to commanders and to chiefs of staff departments.

Example of Order for the March of a Detached Brigade.

FIELD ORDERS, } HEADQUARTERS SECOND BRIGADE, FOURTH DIVISION,
 No. 5. } FIFTH ARMY CORPS,
 TROOPS. Fort Leavenworth, Kans., 7 Mar 02, 7.30 p. m.

1. *Independent Cavalry:*
 Col. A.
 1st & 2d Sqdrs. 5th Cav.
 (less 2 Troops).
2. *Advance Guard:*
 Major B.
 1 plat. 5th Cav.
 1 Bn. 7th Inf.
 1 sec. Engrs.
 Det. ambulance co. section.
3. *Main Body*
 (in order of march):
 1 Tr. 5th Cav. (less 2 plat.).
 1 Bn. 7th Inf.
 10th Battery, F. A.
 8th Infantry.
 9th Infantry.
 Co. A, 1st Bn. Engrs. (less 1 section).
 $\frac{1}{4}$ ambulance co. section
 (less det.).
4. *Right Flank Guard:*
 Major C.
 1 Troop 5th Cav.
 1 Bn. 7th Inf.

1. The enemy is reported to be assembling near Valley Falls, Kans. Our Fourth Division will begin crossing the Missouri River at Leavenworth early to-morrow.
2. This command will occupy the line of the Big Stranger Creek to-morrow.
3. (a) The *Independent Cavalry* will start at 6 a. m., march rapidly to Easton, scouting the country to the north and south of the road, and after arrival will reconnoiter 5 miles to the west and toward Springdale.
 (b) The *Advance Guard* will start from the cemetery at 6.15 a. m. and march by the road Fort Leavenworth-Frenchman's Easton.
 (c) The *Main Body* will follow at 1,500 yards.
 (d) The *Right Flank Guard* will start at 6 a. m. and march via Kickapoo to Millwood. Patrols will reconnoiter to the north of the line Kickapoo-Millwood, and connection will be kept up with the Main Body.
4. The *regimental train* will be parked at Fort Leavenworth and remain there until 10 a. m., after which it will follow the command to Easton, under escort of 1 platoon, 5th Cav.
5. The Commanding General will be at the head of the main body.

By command of Brigadier General H.....

T..... R.....
Adjutant General.

Dictated to adjutants, battery commander, and commander of engineers.
 Copy to brigade surgeon and brigade quartermaster.

THE ISSUE AND TRANSMISSION OF ORDERS.

48. In campaign it will usually be impracticable to print orders and to distribute the number of copies prescribed for time of peace. Moreover, in many cases it will be desirable to keep orders secret as long as possible and confine knowledge thereof to chiefs of staff departments and commanders of the larger tactical units. Writing machines and carbon paper, or other means of manifolding, can often be carried with the headquarters baggage; or, owing to the

present general use of such articles, they may be available in our own, or even in the enemy's country.

In going into the field it is advisable for headquarters to take along a liberal supply of stationery and facilities for writing orders and correspondence. In addition, every general staff officer, adjutant general, adjutant, and aid should carry a blank book with alternate perforated leaves, and with carbon sheets in a pocket, of convenient size for the saddlebags. This book should have a water-proof cover; also compartments for maps, papers, and pencils. A similar book or pad of smaller size should be carried in the dispatch case or coat pocket.

49. The manner of issuing orders in the field is influenced to a large extent by circumstances. The smaller units will usually issue verbal or dictated orders, the commanding officers or their adjutants being assembled either at established hours or pursuant to a special call. When ample time and facilities are available, typewritten copies of orders will be furnished from headquarters of the large units to the commanders of the next lower units, to the chiefs of auxiliary arms or special forces, to the chiefs of staff departments, and to commanders of independent organizations.

50. In large commands it takes some time for formal orders to reach all the lower units; this may be roughly estimated at one hour for a brigade and an hour and a half for a division. The hour stated at the top of an order for operations should be the hour of signature.

Regularity in the hour of issue of orders is out of the question, depending as it often does on information waited for; but every effort should be made to get them out in ample time. The minor staffs will have to work several hours after receipt of orders; officers have to be assembled to receive them or messengers sent out to deliver them. All this may run late into the night or reduce the time necessary for preparation.

After orders have been dictated, one of the recipients should read them out for correction of errors, and notation should be made on the original as to how and to whom they were furnished.

Orders for operations should not be issued a longer time in advance than is necessary for their distribution and for final preparations. The knowledge of the reasons for preliminary arrangements should be confined to the higher commanders and staff officers charged with their execution.

Owing to the great difficulty of transmitting new orders after the beginning of an engagement, all officers, and in minor affairs, all

noncommissioned officers, should be acquainted, at the time of distribution of orders, with the plan of the commanding officer, so that in case of unforeseen difficulties they may continue to act in conformity with the general plan without waiting for orders.

51. Orders for any body of troops will be addressed to its commander. They will be executed by the commander present, and will be published and copies distributed by him when necessary.

In the field verbal and important written orders are carried by officers. Dispatches for distant corps should be intrusted only to officers, to whom their contents may be confided.

Enlisted men will be employed to carry important dispatches only in special and urgent cases. The precise hours of departure and the rates at which they are to be conveyed will be written clearly on the covers of all dispatches transmitted by orderlies.

52. The mounted messengers required on the march, in action or on outpost duty, will be furnished by the cavalry on receipt of orders to that effect. Infantry requires mounted messengers as soon as contact with the enemy is impending; every detachment should have some mounted men with it for that purpose, if for no other.

53. Moderation in the assignment of mounted orderlies and messengers is imperatively required to prevent the reduction of the numbers of the cavalry in the ranks. Messengers should be sent back to their organizations as soon as their specific duties are at an end.

Whenever good roads are available, cyclists may be employed with advantage instead of mounted orderlies. All means conveniently available should be utilized to facilitate the transmission of orders and messages.

It is the duty of all officers, without special orders, to do all in their power to assist the forwarding of orders and messages. A messenger need not alter his pace when passing superiors.

54. Important orders or messages to be sent by telephone should be dictated from written copy and be repeated from the copy made at the receiving station.

Acknowledgment of receipt of important telegrams will be required.

When the usual means of communication can not be established or fail to work, relay lines of mounted men will be necessary. For details of the relay service, see paragraphs 87 and 88.

MESSAGES, REPORTS, SKETCHES, AND WAR DIARIES.

55. In order to frame suitable orders the commanding officer must know the situation. Information will usually come in detail from a variety of sources. The higher commanders, adjoining troops, the statements of inhabitants, newspapers, letters, telegraph files, answers of prisoners—all contribute to the general fund.

Safe conclusions as to the present state of affairs with the enemy can, however, only be drawn from actual reconnaissance and from the collation of observations made at many different points. It is the duty, therefore, of all persons connected with the military service who may come into the possession of information, to furnish it at once and as fully as possible to their superior officers. This is often put in the form of brief messages, for which blank forms are furnished.

56. A report is an account or statement of conditions or events. It is usually drawn up at comparative leisure, is the supplement and expansion of short messages, and thus gains the value of greater detail. A brief message should of course be sent after every fight, but the detailed report to be made later is also required.

57. The use of the message blank (see reduced copy next page) requires no explanation, except, perhaps, that the heading "Sending Detachment" should be filled in with the name of the body of troops with which the writer is on duty, as "Officer's patrol, Troop B, 3d Cav." The address is to be written briefly; the signature, simply the writer's surname and rank.

The message should be brief and *clear*, resembling a telegram. The writer should carefully separate what he has actually seen from information received second-hand. The message blank may also be used to convey orders to subordinates.

The message should be inclosed in an envelope, when one is available. It is customary to leave the envelope open, so that commanders along the line of march may read the contents. The messenger retains the envelope, with the hour of arrival authenticated thereon by the receiver; or a receipt is furnished.

ORDERS.

*Message blank.*Dimensions $\frac{1}{4}$.

Sending detachment.	Location.	Day.	Mo.	Time.
No. —	Received:			
To				

6"

5 $\frac{1}{2}$ "

The reverse of this blank has a rectangle 5 by 6 inches, printed in half-inch squares, for sketching.

The margin on the left is for binding.

The blank should be printed on strong paper.

Envelopes 3 $\frac{1}{2}$ by 6 inches will be of suitable size. The day and hour of departure, the rate of speed, and the address should be marked on the envelope. The recipient will return it to bearer after noting thereon the time of arrival.

58. Although the perfection of modern maps has diminished the value of sketches, they will still be required when no maps of the theater of operations are available, or to supplement poor ones.

They are of great assistance in elucidating details of plans of operations, and are, in most cases, a necessary part of reports of engagements and campaigns.

Sketches must be made rapidly, often on horseback. All needless conventional signs should be omitted. Artistic effect should not be sought, but rather the application of the simplest forms to the case under consideration.

The back of the message blank is ruled in squares, so that it can be used to make simple sketches of positions on reconnaissance or on outpost duty.

The value of a war diary depends upon its recording events as soon as possible after their occurrence. A record of events of this kind should be kept at every headquarters.

ARTICLE III.

THE SERVICE OF INFORMATION.

GENERAL PRINCIPLES.

59. Military information may be considered under two general heads—namely, that which is collected, classified, and made available in time of peace, and that which is sought for by the troops after outbreak of hostilities. The former relates to the terrain, resources, and communications of various countries, and to the numbers, organization, armament, equipment, and instruction of their armies; the latter to the nature of the theater of operations and to the strength, position, morale, etc., of the different arms of the enemy in the field.

The information collected by the General Staff in time of peace assists in deciding on the size of an army or expedition, the proportion of the different arms, the character of the clothing and equipment, the kind and amount of transportation and of supplies of all kinds. The commanding officer of a force already in the field requires fresh intelligence about the enemy and more detailed information in regard to the country to enable him to make plans for operations with the means at his disposal.

60. The service of information in the field naturally divides itself into the duties performed at a distance from a command and the work in its immediate vicinity. The latter forms part of the service of security and its results find tactical application in combat.

61. The commanding officers of independent forces and of separate columns should utilize all available means to secure necessary information concerning the enemy and the ground over which operations are to take place. It is the duty of all persons connected with the military service to report any new information concerning the enemy to their superiors at once.

For reconnaissance at a distance special instructions are usually necessary, but all the measures for the immediate protection of a command should be taken by commanders without orders.

62. The service of reconnaissance is primarily the duty of the cavalry.

When cavalry is not available, or when conditions do not permit of its useful employment, a more restricted exploration will have to be undertaken by infantry. The latter will also be used when additional search seems necessary, principally in the protection of a command, and also before and during an engagement.

63. The judicious employment of spies often affords a valuable means of gaining information. The examination of prisoners, deserters, and inhabitants of the country should not be neglected. It is important to secure some prisoners at an early stage in the operations.

In hostile territory influential individuals, especially those supposed to be active in the enemy's cause, may be seized and their persons and places of residence searched. Letters and newspapers in post-offices, and the files in telegraph offices, should be carefully examined and anything of importance carried off for the use of higher authority. Local maps, especially if of recent date, may become useful immediately.

Correspondence and printed matter not needed should be returned, but when time is lacking, as will often be the case with patrols, the whole may be sent to headquarters.

When the enemy has adopted guerrilla warfare, the search for information acquires special importance. An efficient secret service under keen officers should be organized without delay.

Discussion of the military situation, plans, movements, etc., by officers and enlisted men, in the presence of civilians of whatever age, sex, or nationality, is strictly prohibited, unless orders have been issued to spread false information.

INDEPENDENT CAVALRY.^a

64. Exploration and reconnaissance in the front and on the flanks of forces of all arms are usually carried out by bodies of cavalry. These may vary in size from a squadron to a cavalry corps, but in large commands they generally appear as cavalry brigades or divisions, with batteries of horse artillery as part of the organization. Their duty is to clear up the military situation and at the same time to screen the position or movements of our own forces.

NOTE.^a—Cavalry detached from and operating at such a distance from a command that tactical contact therewith is severed is known as independent cavalry. Its commander must often act on his own initiative in carrying out orders which emanate from the commander of the whole force and render him temporarily independent of subordinate commanders.

65. The first requisite is to find the enemy's lines, columns, or camps, and then to preserve contact—that is, continue in observation. The commander should keep the bulk of his forces well in hand in order to be ready at all times to fight the enemy's cavalry, whether the object be to break down resistance to our own exploration or to prevent reconnaissance by the enemy.

The main object being to observe the enemy, combat should be avoided, except as a means to this end. A few scouts, or small groups of mounted men called patrols, are best suited for observation, because they have great mobility, are readily concealed, and do not draw heavily on the fighting strength of the command.

The number and strength of these patrols are determined by the commanding officer, bearing in mind the object to be attained, the resistance likely to be encountered, the nature of the country, and the necessity of keeping up communication. It is a cardinal principle to send out only such patrols as are required to insure effective reconnaissance, in order to avoid useless fatigue and reduction of fighting strength.

66. When the extent of the ground to be explored or other reasons make it impracticable to organize the system of patrols from the main body, or when fighting may be necessary to secure information, it will be advisable to send out larger detachments known as contact detachments or contact troops, a troop being the usual maximum. These detachments reconnoiter along the lines or in the sections assigned to them, detailing the necessary patrols for this purpose.

67. By sending out a number of patrols and contact detachments on a line perpendicular to the general direction of advance a network of exploration called the "cavalry screen" is organized. The reports received corroborate and amplify each other and, in connection with what is already known, permit a general conception of the enemy's position.

68. The question whether the cavalry should advance in one or more columns will depend upon the direction and condition of the roads, the nature of the country, and the probable activity of the enemy.

As a rule, only very general instructions are issued to commanders of independent cavalry. It will usually be sufficient to designate the region to be explored, to invite attention to specially important points, and to indicate the extent of the daily advance.

The main body, if possible, advances uninterruptedly, but its advance is generally by successive dashes; that is, when necessary, it

halts or moves slowly in order to give the patrols preceding it time to make a hasty reconnaissance and then proceeds rapidly to a new position, according to reports received. Decisive action will depend upon the situation developed by the exploration.

The extent of front covered by a cavalry command should not exceed the limits permitting the chief to exercise control over all parts of his force daily. For a full brigade this may be assumed at about 10 miles.

On very wide fronts several independent bodies will be necessary; they will be under the general control of army headquarters in the field, and each will, as far as practicable, be informed of the object and relative position of the cavalry on its right or left.

With the assistance of their horse artillery, cavalry commanders must solve the difficult problems confronting them without calling upon other arms for support. The position of the horse artillery in the column would usually be near the head of the reserve.

69. The best exploration would be of little value if the observations made be not forwarded in precise language and with great promptness to higher authority.

The patrols and contact detachments are responsible for rapid and reliable communication with the units from which they were sent. The commander of the independent cavalry maintains connection with his immediate superior, and when necessary also looks out for intercourse with his patrols and contact troops. He will send in a daily report, preferably in the evening, on the general situation and the results obtained by the exploration; the precise time of important occurrences should be stated.

DIVISIONAL CAVALRY.

70. In addition to its duty of keeping up communication between the covering troops and the main body, whether on the march or at a halt, the divisional cavalry takes charge of exploration in the vicinity of a command and secures such data concerning the roads and resources of the country as may be necessary for immediate use of the commanding officer.

When there is independent cavalry out in front the divisional cavalry will endeavor to maintain connection therewith; when not, then the divisional cavalry will endeavor to gain contact with the enemy, or, when the latter is too far away, will at least explore the country to a considerable distance.

Squadrons not required for the immediate protection of their divisions may be employed as independent cavalry.

71. Although the exploration of the divisional cavalry is rather limited as to extent, it goes more into detail, and before the beginning of a combat and during all its succeeding phases must display the greatest activity.

When patrols are not strong enough to accomplish their object, such portion of the divisional cavalry as can be spared from other duty may be pushed to the front, always regulating its movements, however, so that its main body will be on hand in case of emergency.

The rapidly changing situation just before a combat and during its progress requires the greatest exertion and good judgment on the part of the divisional cavalry in order to keep up exploration to the front and the flanks and to drive off hostile patrols. It will probably be necessary to send out numerous small patrols, to call in others no longer useful, to keep touch with the enemy after his discovery, and in some cases to establish observation posts.

In campaign separate bodies of troops smaller than a division should be provided with the necessary mounted units.

PATROLS.

72. The commanders of patrols should be selected with care. In important cases officers may be designated. It must be remembered, however, that by detaching many officers the efficiency of troops will be impaired, and that new demands may arise at any moment.

These officers should combine the natural qualities of good health, a vigorous physique, keen eyesight, presence of mind, boldness and determination, with good judgment, improved by a military education or by practice in the field. They will often be placed in position to view matters from the standpoint of a higher commander and to form their opinions accordingly; the most important decisions may depend upon their skill and reliability.

The men should also be carefully selected, and both officers and men of cavalry patrols should be well mounted.

In special cases officers of the general staff or of other arms of the service may be sent out with patrols.

73. The leader of a patrol must, when possible, be provided with a reliable map, an accurate watch, a good field glass, a compass, a whistle, some message blanks, and a pencil.

When strong infantry patrols are sent out, a few mounted men, or under favorable conditions cyclists, should be assigned for messenger service.

74. The strength of a patrol will depend upon the duty it has to perform, the prospect of combat with the enemy's patrols, and the

probable necessity of sending several messages or establishing connecting posts. The detail should be verified by the officer sending out the patrol and to whom it will report afterwards, or by his adjutant or adjutant general.

75. The orders for a patrol, and in fact for any detachment going on reconnaissance, must state clearly what information is desired, what points are of special importance, and what general direction is to be followed. Important and comprehensive orders should be in writing, but precautions must be taken against capture of papers. In any case the sender of the patrol must be convinced that his orders are fully comprehended. Detailed instructions as to the manner of performing this duty should, as a rule, be avoided.

76. The leader of a patrol will inspect it thoroughly before starting off, and satisfy himself that every man and every horse is in fit condition. Horses of conspicuous color, and those which will not go alone without neighing, should not be taken if it can be avoided. He will then, if necessary, secure a guide, locate himself on the map, and communicate the countersign and his plans to the men, after acquainting them fully with the orders and instructions received from higher authority.

77. The patrol must advance quickly and quietly, be vigilant, and make use of cover whenever practicable. Villages and inclosures involving danger of surprise should not be entered unless necessary, and then with precaution and only for brief periods.

Pauses in the progress of the patrol will be made at points affording a good view, in order to make a careful observation of the country and at the same time allow the leader to consult his map and locate himself thereon. The country should be observed in all directions, landmarks to the rear being impressed on the mind so that the way back can readily be found.

78. An invariable formation for a patrol in motion is not prescribed. In order to enlarge the sphere of observation and to provide protection against surprise, men may be sent alone or in pairs to the front and flanks, communication being by signals. Whatever the formation adopted, it should favor the escape of at least one man in case of ambuscade.

In small exploring patrols the commander should in most cases be in the lead. From this position very few signals would be necessary, the patrol simply regulating its movements by his.

Nothing should escape the observation of the patrol. The slightest noise, the smallest indication of the presence of the enemy should be reported to the leader at once. On the roads and in abandoned camps signs are often found which indicate the number, character,

and condition of the enemy, and the direction in which he is marching.

A thick and low cloud of dust indicates infantry; a high and thin cloud, cavalry; a broken cloud, artillery or wagon trains. The size of the command and direction of march may be roughly estimated by the dust, but the effect of wind must be taken into consideration.

The number of campfires and the area over which they are spread will permit an estimate of the strength and position of the enemy. If the lights appear and disappear, it shows that somebody is moving between the observer and the fires. An increase in the number or area of fires indicates arrival of reinforcements. Much smoke at unusual hours indicates movement. Such signs should be accepted with caution, for they may be a ruse.

Tracks in the road indicate the number and kind of troops and the direction of march. Broad trails parallel to the roads or across country indicate a concentrated march.

The strength of a body of troops may be estimated from the length of time it takes to pass a given point. Assuming that infantry in column of fours will occupy half a yard per man, cavalry 1 yard per trooper, and artillery 20 yards per gun or caisson in the column, a given point would be passed in one minute by about—

175 infantry.

110 cavalry, at a walk.

200 cavalry, at a trot.

5 guns or caissons.

For troops in column of twos, take one-half of the above estimate.

79. As soon as it is certain that the enemy has been discovered a message should be sent.

Then the exact location of the enemy, whether he is deployed, marching, or in camp, his strength, and the arms of service should be ascertained and reported. It will often be difficult to decide whether the troops discovered are the main body or merely the advance guard or outposts. The rule is to observe the main body; therefore it often is necessary to obtain a view from a position in rear of the covering troops. This is done by going around or by breaking through, returning over different ground to avoid ambuscade.

Occasionally it will be advisable for the leader to leave his patrol in a place of concealment and continue his observation with one or two companions; in the case of cavalry, the leader and the men thus detached should be well mounted.

80. Patrols should avoid combat unless it is absolutely necessary in the execution of their orders. A protracted pursuit of defeated

hostile patrols would cause a loss of time and tend to frustrate the object of the exploring patrol.

When a patrol becomes scattered it will endeavor to assemble again, for which purpose suitable points should be indicated beforehand. It will then seek to accomplish its mission in another direction; this will also apply when it is impossible to penetrate along the line originally selected. If cut off, the patrol will try to return by a detour or to force its way through. As a last resort the patrol should scatter so that at least a few men may return with information.

Returning patrols approaching their own lines will march at a walk unless pressed by the enemy.

81. Patrols which are far from their commands, or which have gained contact with the enemy, will in many cases have to remain out overnight and continue their observation. For the purpose of resting such a patrol should, if practicable, occupy a place of concealment unknown to the inhabitants, proceeding thereto after nightfall.

The leader of a patrol will in case of necessity provide for subsistence by requisition or purchase. He is authorized to seize telegrams and mail matter and to arrest persons, reporting the facts as soon as possible after his return.

In questioning civilians about the enemy, caution must be exercised so as not to betray our own intentions. No persons will be allowed to go in the direction of the enemy while the patrol is in the vicinity, and the making of visual or other signals to the enemy should be severely punished at the time or later.

82. In addition to the usual signals prescribed in drill regulations the following should be clearly understood by members of a patrol.

Enemy in sight, in small numbers: Hold the rifle above the head horizontally. Enemy in force: Same as preceding, raising and lowering the rifle frequently.

Other signals may be agreed upon before starting, but they must be familiar to the men; complicated signals should be avoided. Signals must be used cautiously, so that the enemy may not derive advantage from indiscretion.

83. The strength of men and animals should be husbanded, so that when proper occasion arises the full exertion of the remaining powers may insure fair prospect of success. Consequently, good opportunities for watering, feeding, subsistence, and rest should not be neglected when they are necessary. The most brilliant feats of exploration are a failure if the information secured is not delivered in time to be useful.

CONTACT TROOPS.

84. For contact troops or detachments the same general rules will apply as for patrols. On account of their greater strength they can act more boldly and should not avoid combat if it is necessary to accomplish results. As a rule they will confine themselves to the direction or the space assigned to them; if forced to give way, they return thereto as soon as practicable.

The commander will send out the necessary patrols. He will examine the messages received and forward them or use them in his own report.

He provides for rapid and reliable communication with his own patrols and with his immediate commanding officer. He regulates the details of his system of patrols and takes the usual precautions against sudden attacks, changing his position after sundown when necessary. He will exchange information with neighboring contact troops when practicable.

RECONNAISSANCES IN FORCE.

85. When it is impossible to locate the enemy's lines and determine his strength in any other way, recourse may be had to reconnaissance in force as a prelude to a general attack. It will be made only by order of the commander in chief.

The futility of attempts to induce disciplined troops to betray their positions by replying to long-range artillery fire, the difficulty of withdrawing infantry or dismounted cavalry under fire in open country, and the severe losses likely to be incurred, make such operations inadvisable unless the necessity therefor is urgent.

The operation is conducted in the same general manner as a regular attack. Various portions of the line are threatened or actually attacked and an effort is made to capture prisoners. Staff officers will endeavor to locate the enemy's trenches and ascertain the strength of their occupation.

BALLOON RECONNAISSANCE.

86. Balloons are classed as *free*, *captive*, and *dirigible*. Free balloons are used to convey information from besieged places, return messages being sent by carrier pigeons, but they are of little use in reconnaissance, because of the uncertainty of their movements and consequent doubt as to their ability to reach friendly or neutral territory.

The dirigible balloon has not been sufficiently developed to afford reliable service.

The principal reliance, therefore, is on captive balloons. A company of the Signal Corps, attached to the headquarters of a field army or of a separate army corps, will have charge of the balloon train and its equipment under the general supervision of the chief of staff. The observer should be a well-informed officer; communication from the basket to the ground would generally be by telephone.

The balloon train will be brought up from the rear and the balloon inflated when required. Its position should seldom be more advanced than the reserve of the outpost.

The position of the inflated balloon may be changed, but its movements should not be such as to subject an important line of advance of troops otherwise under cover to the artillery fire of the enemy.

TRANSMISSION OF INFORMATION—CONNECTING POSTS.

87. The difficulty of transmitting information increases with the distance. At night and when the roads are bad, the service will be slower; when the inhabitants are hostile or the enemy's detachments active, it will be less reliable.

In each troop there should always be some men well instructed in the duties of messengers. In the field their attention should be called to conspicuous objects by which the return route may be identified.

Important information is sent by two or more men, depending upon the dangers of the road. A single messenger is not so confident, and something may happen to him or his horse.

Messengers usually travel on the roads but they may go around villages, small woods, or other places where there is danger of ambuscade.

Information not under seal or marked "confidential," will be communicated to other troops met with on the road. Messengers should be informed before starting whether they are to return or to join the reserve.

All troops are required to render necessary assistance in the rapid transmission of information.

88. Between the main body of a division or larger force of cavalry covering the front of an army and the commanding general, communication will, as far as practicable, be by wire. Failing of this or other rapid means of communication, connecting posts forming a

line of relays will be employed. The fractions of the cavalry screen usually communicate with each other by means of small patrols or single messengers, the use of relays being confined to exceptional cases.

89. Connecting posts are generally placed on the roads at well-marked points, such as crossroads, bridges, etc. The distance between posts will depend upon the rapidity of transmission desired, the number of troops available, and the location of suitable stations. The usual distance is 5 to 10 miles, seldom below 4 miles.

The strength of such posts will vary from a minimum of six men and a noncommissioned officer to half a troop. In hostile country they must be able to resist the enemy's patrols and compel the respect of the inhabitants.

The location of the post would ordinarily be marked by day and by night, but when the country is dangerous the detachment should go into concealment, leaving a man in position to watch for messengers.

90. As soon as a messenger arrives at a post a receipt is furnished to him showing time of delivery; after resting his horse he goes back at a walk. The following is entered in a book: Address of dispatch; time of arrival and departure; names of bearers. The man in waiting mounts his horse, starts off with the dispatch, and is replaced by the next man.

If an orderly finds nobody at a post, he must go on to the next one or even to destination.

When the roads are good, cyclists may be profitably employed for relay service, thus saving the cavalry, which would be heavily taxed by an extensive relay system. One advantage of relay lines is that they can carry mail and important packages.

91. In marking the speed, "ordinary" would mean about 5 miles an hour for a mounted man; "rapid" would require principally trot, 7 to 8 miles per hour; "urgent" would require the highest speed consistent with safety and certainty of arrival at destination, depending upon the distance.

An officer should be placed in charge of about four posts, and they should be relieved when necessary or when no longer required.

ARTICLE IV.

THE SERVICE OF SECURITY.

GENERAL PRINCIPLES.

92. The service of security, in general terms, embraces all those measures which serve to ward off hostile observation and annoyance, to protect the main body against surprise, and to gain time to communicate and execute the orders necessary to meet or evade a serious attack.

The operations of independent cavalry far in advance, and exploration at less distance, form only the first step; it is indispensable that this be supplemented by tactical dispositions providing local protection. Detached bodies of troops should be sent out in every direction from which attacks can be made.

On the march these detachments are called advance guards, flank guards, or rear guards; at rest, they are termed outposts.

The commanders of independent bodies of troops, of separate columns and of detachments, are held strictly responsible for the protection of their commands.

93. On account of the increased hardships they are required to undergo, the troops used in the service of protection should seldom exceed one-fourth of the command; when practicable, only one-sixth, or even less, should be utilized.

The infantry detailed for this service is usually accompanied by cavalry, the latter being employed whenever its mobility can come into play; for example, in local exploration, observation of the flanks of a line of march, maintenance of connection, and as orderlies.

The amount of artillery to be assigned will depend upon tactical conditions.

Engineer troops and detachments of the hospital corps and signal corps will be attached when the necessity therefor is indicated. The regimental trains are left in rear unless otherwise ordered.

94. The tactical organization and connection of troops detailed for the service of protection should be preserved as far as practicable.

On breaking camp, and at the end of a march, the covering troops

must be so managed that the main body will at no time be without adequate protection.

The principles laid down in this article are of general application, and, though primarily intended for a force of all arms, will hold good for bodies of cavalry or infantry acting independently.

ADVANCE GUARDS.

serve vanguard

95. *Objects.*—The cavalry brigades or divisions in front of an army will not, on account of other duties, be able to look out at all times for the immediate security of the columns in rear; consequently, advance guards of infantry must be provided even when it is known that cavalry was sent ahead.

The objects of the advance guard are:

1. To guard against surprise resulting from sudden attacks or ambuscades.
2. To push back the advance troops or small parties of the enemy and prevent them from observing, firing into, and delaying our column.
3. When the enemy is advancing in force, to hold him in check until arrangements for opposing him can be made; at the same time to ascertain his strength and dispositions.
4. When the enemy is found on the defensive, to seize at once the most advanced position affording advantages for our main body, and to locate the enemy's lines.
5. To remove obstacles from and make minor repairs in the road, to furnish information, and to favor in every way the steady march of the column.

96. *Strength and composition.*—The commander of the whole force will determine the strength and composition of the advance guard, as well as the distance which is to separate it from the main body.

No absolute rule for the strength of an advance guard would be generally applicable. It will vary with the object of the march, the nature of the country, the character of the enemy, and the strength of the force it is covering. Ordinarily one-sixth of the whole force may be assumed as a suitable detachment for an advance guard.

It will usually be composed of all arms, the proportions depending upon the character of the country, the nature of the work, and availability of troops.

In open country cavalry and field artillery would bear a much greater proportion to the whole than in close or mountain country.

In swampy country or jungle the advance guard may be formed of infantry alone.

Engineers will usually be attached to the advance guard for the purpose of removing obstacles and making repairs.

A detachment from an ambulance section should habitually march with the advance guard.

Signal Corps detachments will be assigned to advance guards when desirable. They will often be able to communicate with parallel columns and to signal to the rear.

It may also be necessary to send forward to the advance guard all or a portion of an advance guard bridge train.

97. *Distance from the main body.*—The distance of the advance guard from the main body will depend upon the nature of the country, the character and strength of the enemy, and upon our own strength and intentions. On the one hand the distance must be large enough to protect the main body against delay and to afford the time necessary for deployment in case the enemy is encountered; on the other hand it must not be so great that timely support of the advance guard becomes impracticable. When a command advances with a view to attack, the distance would be diminished in order to facilitate promptness of deployment.

In open country a distance of between 1 and 2 miles from the head of a division to the reserve of its advance guard would usually be sufficient. In smaller commands this distance would be reduced according to circumstances and the size of the command, but would seldom be less than 600 yards.

98. *Distribution.*—The advance guard is divided into the reserve and the vanguard. The reserve consists of from one-third to one-half of the advance guard. The vanguard is divided into the support and the advance party, the former being generally twice the strength of the latter, though the proportionate strength of the parts of the advance guard may differ according to convenience of subdivision and the circumstances under which the advance guard is operating. The distance of each portion of the advance guard from the one in rear varies according to the size of the advance guard, but should in every case be sufficient to protect the body immediately in rear from surprise and give it time to prepare for action.

Large advance guards usually consist of all arms of the service. Artillery is habitually with the reserve, but in exceptional cases part of the guns may be with the vanguard. A detachment of engineers should be with the support. When cavalry forms a component part of the advance guard it should, if sufficient in numbers,

compose the vanguard. In this case the cavalry, though under the orders of the advance guard commander, should be given much freedom in pushing forward and no attempt should be made to fix the distance between the support and the reserve. If it be practicable to push the cavalry far ahead, the reserve should throw out an advance party and flankers.

If a squadron or more can be spared for the purpose it may be pushed forward as independent cavalry operating under the orders of the division commander, instead of forming a part of the advance guard, which in this case should have only a sufficient force of cavalry for the purpose of communication and exploration in the immediate vicinity.

The use of cavalry will vary according to circumstances; it may be employed as a screen, it may form a part of the advance guard, or it may be held back under the immediate control of the commander of the whole force, after contact with the enemy's infantry has been gained or when the enemy's cavalry is in greatly superior force; or portions of the cavalry may be held back as a relief from arduous duty in advance. In any event sufficient cavalry must be left with the main body and with the advance guard for the purposes of communication and of exploration in the immediate vicinity.

99. In the advance guard of a division the vanguard marches about 1,000 yards ahead of the reserve; in smaller commands at less distance, but sufficient to prevent the reserve from being surprised by effective rifle fire.

The vanguard sends forward an advance party to about 600 yards; this in turn is preceded at somewhat less distance by the infantry point. Beyond this there is the cavalry point, or the cavalry of the vanguard with its point, at variable distances.

The advance party also throws out flankers on each flank. The infantry point varies in size from four men to a squad and is under command of a noncommissioned officer. The flanking groups are generally of the same size as the point; they are thrown out from the support also, and sometimes from the reserve. The point marches in close or dispersed order on the road. The flankers are habitually in dispersed order. Mounted men or cyclists maintain communication between the several parts of the advance guard, or connecting files may be used.

The cavalry point consists of from four to six troopers under the command of an officer or reliable noncommissioned officer. Two men remain on the road, the others proceed at a rapid gait to high

places along the line of march, in order to obtain a view of the country to the front.

100. The advance guard of a division, for example, might be composed of 2 regiments of infantry, 2 troops of cavalry (less 1 platoon), 2 batteries of artillery, 1 company of engineers, and detachments of signal and hospital corps, distributed (with independent cavalry) as follows:

Independent Cavalry: Two squadrons and two troops.

ADVANCE GUARD.

Vanguard:

- (a) One troop, with point, flanking detachments, and patrols in communication with independent cavalry.
- (b) Infantry advance party with point: one company.
- (c) Support: Two battalions (less one company); a detachment of engineers (mounted).
- (d) One-half troop, on duty furnishing flanking groups and connecting patrols.

Reserve:

One platoon of cavalry (escort and orderlies); one battalion; the batteries; one regiment; the company of engineers; mounted detachment of the signal corps, having members with the support, the advance party, and in reconnaissance or at temporary stations; detachment of hospital corps with ambulance.

101. In forming the advance guard of a command smaller than a brigade the foregoing distribution may often be modified, depending upon circumstances. A company or troop may send forward only a point; a battalion or squadron may be preceded by nothing more than an advance party with its point; for a single regiment a reserve in the advance guard would generally be unnecessary.

102. The advance guard cavalry will, in addition to its duties of communication and exploration to the front, furnish the patrols which march along the flanks. The infantry will march on the road, sending out flanking patrols only when this duty can not be efficiently performed by cavalry with the command.

The artillery of the advance guard usually marches near the head of the reserve.

Engineers (with advance guard bridge train, if ordered) will march at the rear of the reserve; a portion with a tool wagon may be sent to the vanguard.

103. When infantry is marching without cavalry it will generally strengthen its advance party and support, so as to be able to fur-

nish the necessary exploring patrols. Under favorable conditions cyclists would be very useful, both in exploration and communication.

Cavalry marching independently adopts for its advance guard formations similar to those already described. It is not advisable to split the command up too much. An advance party with a few patrols will usually be enough for a squadron.

104. The principal duty of an advance guard is to insure the uninterrupted progress of the main body and to protect it against serious attacks without due warning. Confident that the main body is approaching to support him, the commander of the advance guard is warranted in acting with a considerable degree of boldness.

The rate of progress of the various parts of the advance guard is regulated on that of the troops following them, subject to the general provisions of paragraphs 97 and 99.

105. *The commander of the advance guard.*—An officer combining courage with good judgment should be selected to command the advance guard. He goes where most needed, but is habitually with the reserve; he should be mounted. After receiving his orders and being informed of the intentions of the commanding officer and of what is known concerning the enemy, he dictates advance guard orders or gives them verbally and sees that his command starts in proper formation at the appointed time. On the march he will take steps to preserve connection between all parts of the advance guard and with the main body, and will continually consider the measures necessary to facilitate the march of the main body and to provide for its security. He should observe the ground and consider its tactical advantages in connection with his instructions and the circumstances which may arise.

106. *The commander of the vanguard.*—This officer, mounted, usually marches with the support, but goes where needed. He is provided with a map and has charge of the available guides. He sees that the proper road is taken; that guides are left in towns and at cross-roads; that special patrols are sent to examine doubtful points; that necessary repairs are made in roads, bridges, etc., and that information affecting the march or concerning the enemy is promptly transmitted to the commander.

As the most important duty of the reserve is resistance, so that of the vanguard is reconnaissance.

107. *Halts.*—During short halts the fractions of the advance guard retain their relative positions. Observation is continued from high points, and patrols are sent out on roads and trails. During pro-

longed halts the advance guard establishes pickets, seeks good defensive positions, and otherwise conducts itself like an outpost.

108. *Advance guard during a retreat.*—A retreating column should be preceded by a small advance guard. Its principal duty is to clear the road of obstacles. Mounted men will scout to a sufficient distance to prevent surprise.

109. *Miscellaneous provisions.*—As the efficiency of cavalry depends largely on the condition of the horses, occasional relief from arduous advance guard duty should be provided. Ample provision of forage and water, good grooming, shoeing, and rest at night will go far to keep animals in condition after they are properly hardened.

Deserters, suspicious characters, and bearers of flags of truce—after being blindfolded—should be taken to the advance guard commander under proper guard.

Civilians must not be permitted to precede the advance party.

As soon as signs of the enemy are reported the commander of the advance party will endeavor to verify them.

Unnecessary noises and other actions likely to attract attention of an enemy should be avoided. The point and flankers fire only when necessary in self-defense, or when it is certain that they have been seen by the enemy and that he is not retiring.

Advance guards and fractions thereof pay no compliments; individuals salute when they address or are spoken to by a superior officer.

FLANK GUARDS.

110. The flanks of a column are protected in part by the advance guard, which during its progress carefully examines the ground on both sides of the line of march, but principally by flank guards varying in size from patrols to detachments of all arms. These bodies may advance with the command by marching in a direction generally parallel to the column and keeping abreast of the unit from which they were detailed, or they may be sent out from the advance guard, reinforced for this purpose, or from the head of the main body, to occupy favorable positions on the threatened flank until the whole column has passed. In the latter case they join the rear guard and return to their commands at the end of the day's march.

The flanks of a column must be protected throughout its length; in long columns the large units may be directed to provide their own flank protection.

111. The composition, formation, and duties of flank guards are governed by the same principles as those laid down for advance

guards. They may protect their outward flanks by smaller flanking detachments. They must keep in touch with the main body by means of messengers or patrols. The guiding principles in the conduct of flank guards are rapid warning of the presence of an enemy and stubborn resistance to gain time.

Exploration and rapid communication require assignment of cavalry to flanking detachments. They will usually be composed exclusively of that arm, but when strong positions are to be held, or prolonged resistance to the enemy is expected, troops of all arms will be necessary.

112. When the main body executes a flank march near the enemy the flank guard becomes a body of great importance. On account of the hazardous nature of the operations the trains usually conform to the movement at a safe distance from the enemy. When the flank march results from a considerable change of direction effected by the column, it will generally be advisable to convert the advance guard into a flank guard and detail a new and smaller advance guard to precede the column.

REAR GUARDS.

113. In a defeated force the rear guard has the important duty of covering the retreat. It can not, like the advance guard, count upon the support of the main body. On the other hand, it will more often have an opportunity to fight on ground of its own selection. In good defensive positions, with natural or artificial obstacles, it can force the enemy to deploy his troops and to make detours, all of which takes up time. It will be a decided advantage if this result can be accomplished without involving the infantry of the rear guard in a serious engagement. The rear guard must be prepared, however, to render stubborn resistance and to submit to such sacrifices as the circumstances may demand.

114. *Strength and composition.*—A rear guard will usually be a fighting force composed of the three arms. Its strength will vary with the nature of the country and the character of the pursuit. In some cases it should be somewhat stronger than an advance guard, especially in field artillery, the advantage of the latter being due to its mobility and the fact that it can force the enemy's troops to deploy at long range. A detachment of about one-sixth of the whole force would in ordinary cases furnish a suitable rear guard.

A relatively large force of cavalry will be required to maintain contact with the enemy and to look out for the flanks. Some

mounted engineers should be at hand to prepare obstructions and to execute demolitions at the last moment. Ambulances with necessary personnel of the hospital corps should always be attached to a rear guard.

The troops for a rear guard should be selected from those which have had previous local successes, or have suffered but slight loss and are comparatively fresh.

115. *Distance.*—The distance of the rear guard from the main body will vary according to circumstances. As a rule it should be about the same as the distance of an advance guard. If marching at night the rear guard draws nearer to the main body.

116. *Formation.*—The proximity and conduct of the enemy will control, to a large extent, the formation of a rear guard. When it is not necessary to withdraw in deployed lines the greater part of the rear guard will march on the road in column of route, taking up a formation which resembles that of an advance guard faced to the rear. The division of the rear guard into parts is similar to that of an advance guard, namely, reserve, support, and rear party with rear point.

117. The reserve will usually be composed of infantry and artillery, with some cavalry for purposes of communication. Engineers will be at the rear of the reserve, except the mounted detachment, which may be with the support, or temporarily with the rear party.

The remainder of the rear guard would generally be composed of cavalry, but it may be necessary on account of weakness of the rear guard cavalry to form the support of infantry. The rear party and its point should be cavalry.

118. The rear guard cavalry gives way before the enemy's pursuit when absolutely necessary, maintains communication with and sends information to the rear guard, and pays special attention to the weak points in a retreat, namely, the flanks. It must make use of all the various kinds of action of which it is capable, according to circumstances, and unless greatly outnumbered by hostile cavalry should of itself cause considerable delay to the enemy.

119. Cavalry not needed in the rear guard may be formed into independent bodies with horse artillery and may remain under direct control of the commander of the entire force. By taking up successive positions on the flanks of the line of march it may greatly facilitate the retreat.

120. *Action of a rear guard.*—When the enemy is conducting an energetic pursuit the rear guard effects its withdrawal by taking up a succession of defensive positions and compelling the enemy to

attack or turn them. When the enemy's dispositions are nearly completed the rear guard begins to fall back, the cavalry on the flanks being usually the last to leave. The troops already in the next position cover the withdrawal with their fire, and the rearmost troops march past them to another good position. The repetition of this process results in the desired gain of time, especially when it is difficult for the enemy to march across country in deployed formation.

121. In occupying rear guard positions it is desirable (1) to make as strong a display of force as possible and (2) to make sure of good lines of retreat. The latter, and the successive positions, should be reconnoitered by staff officers, and it may be of advantage to cut wire fences and make other hasty preparations to facilitate the march of the troops.

122. The first consideration in a position for artillery of the rear guard is that it shall be able to open fire on the enemy at long range and thus compel his deployment. Field artillery in flank positions is very effective when able to open oblique or enfilading fire on the enemy's lines; it must be accompanied by a strong mounted escort.

123. The pursuit may be delayed by obstacles placed in the enemy's path. Bridges may be burnt or blown up, boats removed or destroyed, fords and roads obstructed, tracks torn up, telegraph lines cut, and houses, villages, woods, or fields fired. Demolitions and obstructions should be prepared by troops detailed from the main body or the reserve and completed by the mounted engineer troops of the rear guard at the last moment.

The instructions of the commander in chief will govern in the demolition of important constructions.

Rear guard of an advancing force.

124. When there is no danger of attack on the rear of the column the rear guard will be small. It is composed of infantry, with some mounted men, and serves mainly for police purposes, as stated in paragraph 239. It marches about 100 yards in rear of the column, or in rear of the regimental trains when they are present with the command.

When trouble is apprehended from guerrillas, marauders, etc., it will have to be stronger, especially in mounted troops.

If there is a possibility that the rear of the column may be attacked by the enemy, the rear guard should be composed of all arms and sufficiently strong to meet all emergencies. In such cases the same principles will apply in its conduct as in the rear guard of a retreating force.

OUTPOSTS.

General principles.

125. The duties of outposts may be summed up in the words reconnaissance, observation, and resistance.

The reconnaissance which finds the enemy and watches his every movement renders surprise impossible. Efficient exploration is therefore the first step toward security; its importance increases with the degree of proximity of the enemy. This duty is generally assigned to the cavalry, whereas local observation, especially at night, and determined resistance which gains time for the main body to develop its course of action, fall principally to the infantry.

126. The formation of the outpost must be such that all lines of approach from the direction of the enemy will be covered. This necessitates a radiating arrangement of the outpost troops, the result being that the ground occupied will, in its general outlines, resemble an open fan. Extensive positions will, when necessary, be divided into sections.

As movement of troops across country, especially at night, is more or less difficult, the first consideration in establishing outposts is to command the roads.

When troops have been facing each other for some time, vigilance should be increased. If at the end of a march the halt is for the night only, simple measures, such as detached posts and pickets on important roads and a few patrols will generally suffice.

When deployed troops suspend hostilities for the night, they will often be obliged to bivouac in line of battle. In such cases surprise is prevented by posting sentinels and sending out patrols, covering detachments would only serve to interfere with effective fire of the line in case of attack.

Fresh troops should be designated to form the outposts which are established after an engagement.

127. At the end of a march the advance guard takes up outpost duty; in small commands it may be necessary to devote the entire advance guard to this purpose. When the duties of the advance guard have been particularly arduous, it should be relieved by fresh troops as soon as practicable after the end of the day's march. Cavalry out in front should remain there until dusk, unless sooner relieved.

In the case of a force marching to the rear, the outpost would be established by the rear guard; however, when the enemy has been

conducting an active pursuit the outpost should, if practicable, be established from the main body so as to relieve the rear guard as it marches through the outpost position. If the retreat is continued next day, the outpost would, as a rule, form the rear guard.

128. At sieges, continuity in the line of observation and uniformity in the distribution of the fractions of outposts may be desirable; but in the usual field operations the conditions are so various that normal formations in almost all cases require much modification. The arrangements and instructions should be regulated by the special circumstances of each case.

129. Officers on outpost duty should be allowed great latitude so long as their dispositions are calculated to insure sufficient warning of attack, adequate resistance, and close cooperation between the parts of the outposts.

All troops on outpost duty should be carefully concealed, and all movements should be made so as to escape observation by the enemy.

130. Outposts should not endeavor to bring on combats. Unnecessary firing disturbs the rest of the main body without compensating results, and when frequently indulged in ceases to be a warning; moreover it may bring on an engagement of a magnitude beyond the control of the outposts. In special cases activity at the outposts may be ordered with a view to wearing out or deceiving the enemy.

131. Shortly before dawn and at dusk are the hours of special danger. The enemy may attack late in the day in order to establish himself in captured ground by intrenching during the night; or he may bring up troops under cover of darkness in order to make a strong attack at early dawn. As a precaution there must be an increased degree of readiness at these hours, and special patrols will be sent out beyond the line of observation.

132. The advanced portions of the outposts will habitually intrench and strengthen their positions, clear the field of fire when practicable, and open or improve communications laterally and to the rear.

Obstacles should be so placed within medium range as to delay the enemy under fire without affording him protection. Barbed wire will often be available for this purpose.

Distances to conspicuous objects in the foreground within range should be measured, or, at least paced off by experts, and the men made familiar with the ranges.

The degree of preparation of the outpost position, beyond the essentials, will depend upon the length of time it is to be occupied.

Whenever a command is to remain in the same place more than one day, or in case the ground is to be occupied by other troops, the rules for sanitation of camps and bivouacs must be fully complied with.

133. Vigilance must be unceasing so that all the troops on outpost duty may at all times be ready for the full performance of their duties in the emergencies that may arise.

134. Intercourse between the various parts of the outposts and with the main body is kept up by means of mounted orderlies, cyclists, visual signaling—under proper precautions—or by wire.

Officers or noncommissioned officers with good telescopes, and signal detachments may be placed on high buildings or in church steeples.

No trumpet or drum signals, except "to arms" or "to horse," will be sounded at the outposts, and all unnecessary noises are to be avoided.

A countersign will be used in the field in exceptional cases only. At sieges its use is more common.

No compliments will be paid at the outposts. Upon the approach of higher officers troops do not fall in unless ordered to do so. Individuals do not salute unless addressing or being spoken to by an officer. Sentinels will not interrupt observation on account of proximity of officers.

Strength and composition of outposts.

135. The strength and composition of outposts are influenced by many considerations, such as our own strength, the distance, character, and strength of the enemy, the nature of the ground and of the operations, the duration of the outposts, the time of day, and the presence or absence of independent cavalry at the front.

136. On account of the exacting nature of the duties and the hardships connected therewith, especially in bad weather, the proportion of troops on outpost duty should be as small as may be consistent with safety. It should as a rule not exceed one-sixth of the entire command, and may be much less under favorable conditions.

137. The troops for outpost duty will consist principally of infantry and cavalry, the former usually being by far the more numerous. The cavalry will be largely employed in open country in the day-time; at night and in close country its use will be restricted, and in swampy country it may be confined to the roads.

138. Artillery will be useful with the outposts when its fire can sweep defiles or large open spaces; also when it commands positions

for hostile artillery which are within reach of our lines, and which can not be occupied unperceived. The guns should be carefully concealed and are usually withdrawn at night or specially protected. Facilities for rapid withdrawal, under cover if practicable, should be provided at all times.

Machine guns may be used with the outposts to command approaches.

Outpost positions.

139. Camp is usually selected with due regard to water, fuel, shelter, and communications. Near the end of the day's march orders will be sent to the commander of the advance guard, designating approximately the location of the camp of the main body and the position of the reserve of the outpost.

As soon as the main body halts, the commander should select the position to be occupied in case of attack, and the commander of the advance guard establishes the outpost in accordance with instructions. The latter should be informed whether reinforcements can be expected, or whether he is eventually to fall back to the position of the main body.

140. The outpost position should be so chosen that the enemy's guns will be prevented from opening effective fire, not only on the camp or bivouac of the main body, but also on the position it is to occupy in case of attack. It must be possible, therefore, to bring all such artillery positions under effective infantry fire of the outposts. The distance of the line of resistance of the outposts from the main body should, in large forces, be 2 to 3 miles; for forces smaller than a division the distance must necessarily be less.

141. It will more often be a question of making the best of existing conditions than of camping the main body with reference to a selected outpost position. As far as possible, however, the outpost position should afford a good view and field of fire to the front, and concealment and shelter from the enemy's fire. Withdrawal from the position should be easy and, if practicable, under cover. There should be good lateral communications, or, at least, no impassable obstacles extending from front to rear within the lines. Well defined natural features such as streams, ridges, roads, farther edges of woods, etc., are convenient in marking the limits of the position. Commanding positions from which a wide extent of country is visible will greatly facilitate observation. Strength for defense is of greater value than ease of observation, for deficiencies in the latter respect can be offset by diligence in patrolling.

The outposts must cover the front of the main body and extend around the flanks, unless the latter are protected by impassable obstacles or by other troops.

For obvious reasons the line of observation should never be placed on the near side of woods or fields of brush or tall crops.

Distribution of outpost troops.

142. The troops detailed for the outpost of a force of all arms are divided into the reserve, the supports, the pickets, and the outpost cavalry.

The reserve sends out two or more supports; the supports detach cossack posts, sentry squads, or pickets, or, in the general case, a combination of these units, all of which post sentinels or double sentinels still farther toward the enemy.

Examining posts will be established when necessary; detached posts are sent out in special cases.

The sentinels occupy the line of observation. The supports usually are on or near the line of resistance; they are reinforced by the reserve when necessary.

For forces smaller than a brigade the foregoing distribution would be modified. A regiment would ordinarily dispense with a reserve; a battalion or smaller body would protect itself by employing cossack posts or small pickets and a few patrols.

In small sections of the general outpost disposition, and in the less important directions, the distribution may be simplified in a similar manner.

For distribution of outpost cavalry see paragraph 202.

Establishing the outpost.

143. The entire outpost will be placed under the orders of an officer designated as the commander of the outpost. Commanders will also be assigned to the sections into which the outpost position may be divided.

144. The orders for the daily halt and for establishing outposts are usually issued at the same time, and should reach the commander of the outpost before the end of the march. They should contain the latest information concerning the enemy; the situation of the camp and of the defensive position of the main body, as well as the general position of the outpost; what is known of the independent cavalry and of neighboring troops; the degree of resistance

to be offered to the enemy; the detail of troops that are to form the outpost (if other than the advance guard), and the hour when the outpost will be relieved.

145. It will not be possible, as a rule, for the commander of the outpost to dictate complete outpost orders at once. With the aid of a good map and the information gained on advance guard duty, it should be possible to order the essential dispositions while the troops are still in march. General instructions for division into sections, the location of the reserve, the supports and the line of observation, the assignment of mounted orderlies or cyclists, provisions as to patrolling, and action to be taken in case of attack—all these matters can be ordered without much delay. Later on, after a thorough inspection of the position, the outpost commander will order such changes and additional dispositions as appear to him desirable.

146. The reserve and the supports proceed to their positions by the nearest way, providing for their own protection if necessary. The supports send forward pickets or smaller groups, which then establish sentinels on the line of observation.

When in exceptional cases the advance guard does not form the outpost it must remain halted in place until ordered in.

147. The commander of the outpost is responsible for the correct arrangement of all parts of the outpost and will make careful provision for connection of the different sections and for rapid communication between them. He should endeavor from the start to maintain or resume contact with the enemy.

When practicable outposts should be completely established in their positions before darkness comes on.

Officers and noncommissioned officers should get their bearings as soon as practicable.

The outpost commander usually remains with the reserve, but should go rapidly to any place requiring his presence for inspection or other purposes, after informing the officer next in rank.

The commander of the outpost verifies the correctness of the dispositions and sends a report thereof to the commander of the whole force, together with the latest information concerning the enemy.

Outposts at night.

148. During the daytime the cavalry is depended upon to a large extent to furnish early warning of approach of the enemy. At night the greater part of the cavalry is withdrawn, for the double reason that the horses must be allowed to recuperate, and that men on foot

are better suited for the work. Some strong mounted patrols should, however, if practicable, be left out several miles to the front to watch bridges, fords, and important roads.

It will seldom be advisable in civilized warfare to draw the outposts closer to the main body at night in order to diminish the front; an increased number of sentinels would therefore be necessary were it not for the fact that the enemy is usually confined to the roads and trails in night operations. The roads should therefore be strongly occupied, the intervening ground being diligently patrolled.

Changes in the disposition of the outposts should be arranged for during daylight and carried out after dusk.

In very open country, or in warfare with a savage or semicivilized people familiar with the ground, special precautions may be necessary.

The reserve.

149. The reserve forms a general support for the line of resistance. It should therefore be centrally located, near the junction of several roads coming from the direction of the enemy, and in concealment, if practicable.

The distance of the reserve from the main body varies with the size of the latter; thus

For a regiment, 1,000 to 1,500 yards.

For a brigade, 1 to 1½ miles.

For a division, 1½ to 2 miles.

Of the troops detailed for outpost duty about one-half of the infantry, generally all of the artillery and such cavalry as is not necessarily otherwise employed will be assigned to the reserve.

150. The commander of the outpost decides whether, or to what extent, the troops will bivouac, go into camp, or occupy buildings. He sends out the necessary patrols and sees that the usual interior and exterior guards are established.

The arms will be stacked, and equipments (except cartridge belts) may be removed. The commander will direct what degree of readiness is to be maintained, whether all or a portion of the men must remain near the stacks, whether messing, feeding and watering, unsaddling and grooming will take place at fixed hours or by detachments. In the vicinity of the enemy, or at night, a portion of the infantry may be required to remain under arms, and the cavalry to stand to horse with loosened cinchas; artillery would remain in harness.

Places of assembly for the troops will be designated. In case of

alarm the reserve prepares for action without delay, and word is sent to the main body. In the ensuing combat, if it is impossible to drive off the enemy, the principal endeavor will be to delay him as much as possible.

The supports.

151. After taking out the reserve, the remainder of the infantry of the outpost troops will be divided into supports. These in turn send forward about half their force as pickets or smaller groups.

The number of supports and their positions will vary with the number of troops available, the conditions imposed by the enemy, and the lay of the land, especially of the roads. They will usually be placed on the important roads leading toward the enemy and should occupy good defensive positions, at the same time affording assistance to adjoining supports and forming a suitable part of the general line of resistance.

The position of the line of resistance is generally about 1,000 yards in rear of the line of observation, but the configuration of the ground may require it to be much nearer, or even to coincide with that line. The supports should be placed so as to provide for prompt occupation of the line.

The principal resistance may, under exceptionally favorable circumstances, be made some distance in advance of the line of observation; for example, a low range of hills astride the enemy's line of advance might be occupied by placing sentinels on the crest, and the carefully concealed trenches of the line of resistance near the foot, thus securing a destructive grazing fire. At night the front of such a position should be covered by a far-reaching system of small mounted patrols.

152. A support consisting of one battalion would, with its pickets, form an outpost group covering a front of about 2,500 yards.

The distance of the supports from the reserve, or from the main body when there is no reserve, will be 800 to 1,000 yards—somewhat less in commands smaller than a brigade.

As soon as a support arrives at its designated position it adopts temporary measures of security and remains under arms until the pickets have been established.

The commander of each support should be accurately informed as to the limits of the section in which his responsibility lies. The dividing line between supports should never be placed on a road if it can be avoided.



153. When practicable the commander precedes his support and makes a rapid examination of the surrounding country. As soon as possible he sends out pickets or smaller groups and establishes communication with adjoining supports.

The support then stacks arms and the men may remove their equipments, except cartridge belts.

Cooks' fires should be concealed as much as possible; feeding and watering to be done by sections.

The pickets and the cossack posts or sentry squads of each support will be numbered from right to left.

Mounted orderlies, whether of infantry or cavalry, will not unsaddle, but will mess, water, feed, and shift saddles, one at a time, at the support.

154. The commander of the support, as soon as practicable, makes a more careful reconnaissance of the section assigned to him, rectifies the position of the pickets, gives instructions as to what to do in case of attack, orders construction of trenches and obstacles, selects places for additional posts to be occupied at night or during a fog, and questions subordinate commanders in order to test their grasp of the situation and knowledge of their duties. Upon return from this inspection he will prepare a report to the commander of the outpost, appending a simple sketch showing the position of sentinels, pickets, and support.

All the arrangements should, if possible, be completed before nightfall, so as to give the troops time to become acquainted with the ground and the preparations for defense.

155. A single sentinel will be posted with the support for security. In some cases two sentinels may be placed over the stacks; in very close country it may be necessary to have several posts near by.

Nobody is allowed to leave the support without permission.

156. The commander of the support is responsible for the position of all its parts, for the proper performance of duty, and for communication with adjoining supports. Under dangerous circumstances, or in compliance with orders received, he may require a part or even the whole of the support to remain in ranks; but ordinarily the men of the support stack arms and merely remain in the vicinity of the stacks ready to fall in.

The pickets.

157. It is the duty of pickets to maintain uninterrupted observation of the ground to the front and on the flanks by means of senti-

nels and patrols, to report promptly hostile movements and other information relating to the enemy, to prevent unauthorized persons from passing the line of observation, and to drive off small parties of the enemy or to make temporary resistance to larger bodies.

Pickets usually consist of complete sections or platoons under command of an officer or a selected noncommissioned officer.

158. The picket proceeds to its assigned position with caution, being preceded by patrols unless other troops are already on the ground.

The commander immediately posts double sentinels in places favorable for observation and sends out patrols to examine the ground in the vicinity. He divides the picket into reliefs and personally makes all details.

A single sentinel is placed over the stacks or in the vicinity. He reports all signals and unusual occurrences. When the picket is under cover a double sentinel may be necessary.

When the sentinels of the line of observation can not be seen from the picket a connecting sentinel will be necessary for purposes of communication.

Any of the sentinels, except of the interior guards, may be placed on high points to increase their range of vision.

The commander of a picket should, as soon as practicable, communicate with adjoining pickets with a view to mutual support, and report his arrangements to the commander of the support.

159. Roads from the direction of the enemy should be commanded by pickets placed on or near them.

The picket should be concealed from view of the enemy, and be in or quite near to a strong defensive position with a good field of fire to the front and flanks.

A picket must not take post in a house or an inclosure with high walls, unless ordered to do so by superiors.

160. The intervals between pickets are very variable, usually from 400 to 800 yards in the daytime. At night and in thick weather additional pickets or sentry squads may be necessary.

The distance of the pickets from the support will, as a rule, be about 600 yards.

161. For every sentinel and for every patrol there must be three reliefs; therefore one-third of the strength of the picket gives the maximum number of men which will be on duty as sentinels or patrols at one time. The picket commander will make the best dispositions he can with the means available. It is of less importance to form a continuous chain of sentinels than to occupy the important points and the roads and trails coming from the enemy's direction, the intermediate territory being watched by patrols.

162. Fires will not be lighted by a picket except by permission, under circumstances favorable for concealment. Cooking for the picket will be done at the support.

The arms may be stacked, but should be so arranged that each relief and each patrol will have a separate place. The men will be permitted to remove their equipments, except the cartridge belt. They must remain in the immediate vicinity, ready to fall in at once. At night a part of the picket will remain under arms; the remainder sleep with their weapons at hand.

163. The commander of the picket is responsible for the proper performance of duty and the constant readiness of his command.

Before forwarding information he will personally verify it if practicable.

When a superior officer approaches the commander of the picket will report to him. The men will remain as they are.

In case the picket is forced to give way before the enemy it must be careful not to mask the fire of the support.

Individual observers and small patrols of the enemy may be captured, provided the pursuit does not go far and does not materially impair the strength of the picket.

Cossack posts and sentry squads.

164. The sentinels on the line of observation may be posted from the picket direct, or from cossack posts or sentry squads.

Cossack posts consist of 4 men, being the three reliefs of a single sentinel, and a noncommissioned officer or an old soldier in charge. Sentry squads consist of the corporal and 7 men, forming a squad of infantry. This affords three reliefs of double sentinels, with 1 extra man to carry messages and assist in patrolling. Single sentinels are used in open country in the daytime; double sentinels in close country, in thick weather, at night, or when special vigilance is necessary. The sentinels are placed from 10 to 30 yards in advance of their groups; the latter rest in concealed positions near the line of observation, with intervals of from 100 to 300 yards.

Ordinarily cossack posts and sentry squads will be posted only from the supports, and no pickets will be established for that part of the line.

165. The advantages of the group system are that it gives confidence to the sentinels, leaves men available to carry messages, to take charge of persons stopped by the sentinels, to communicate with adjoining groups, and to do a considerable amount of patrol-

ling. The groups are, in effect, small pickets. The fatigue of marching the reliefs is saved, there is a more economical use of men, and silence—important at night—is maintained.

When the line of resistance coincides with the line of observation or is so near to it that the supports would not be more than 400 yards distant, the line of sentinels would ordinarily be established without the intermediary of pickets, cossack posts being employed when it is practicable to use single sentinels, and sentry squads when double sentinels are requisite. Patrolling to the front is performed by patrols from the support, but patrolling between the posts and back to the support would be done by small patrols from the groups.

The advantages of cossack posts or sentry squads are such that they will generally be used instead of pickets. Prompt reinforcement of threatened points is provided by requiring of the supports the same vigilance that would otherwise be required of the pickets.

Small commands may protect themselves by cossack posts or sentry squads, without pickets, supports or reserves, reinforcement being provided by requiring a portion of the main body to remain on the alert.

The sentinels.

166. Sentinels should be concealed from the enemy when practicable, but their positions must always afford a clear view to the front. Double sentinels must be near enough to each other to be able to communicate easily in the ordinary voice.

Sentinels will ordinarily be on duty two hours out of six. In severe weather or under exceptional conditions they may be relieved hourly or oftener.

167. Skillful selection of the posts of sentinels will increase their field of observation. A high point, under cover, will be of advantage by night as well as by day on account of greater facility of seeing lights and hearing noises.

The double sentinels established by pickets should not be more than 400 yards away.

The interval between double sentinel posts would seldom exceed 400 yards. For single sentinels and in close country the interval may be as low as 100 yards.

The sentinel posts of each picket will be numbered from right to left, irrespective of the location of their reliefs.

168. Sentinels will remain motionless, except when it is necessary to move for purposes of observation. Reliefs and inspecting officers should approach from the rear and remain under cover if possible.

169. Glittering objects of uniform or equipment should be covered up. It will seldom be necessary to fix bayonets except at night, in a dense fog, or in very close country.

170. *General orders for sentinels will embrace the following:*

They will watch to the front and flanks without intermission and devote special attention to unusual or suspicious occurrences. As soon as they perceive indications of the presence of the enemy they will notify their immediate superiors or the commander of the picket. In case of imminent danger, or when an attack is in progress, they will give the alarm by firing rapidly.

By day, officers, noncommissioned officers and detachments fully recognized as part of the outpost, and officers known to have authority over it will be allowed to pass in or out; all others will be detained and the noncommissioned officer in charge notified, or they will be sent to the examining post if so ordered. Individuals who fail to halt or otherwise obey a sentinel will be fired upon after a second warning, or sooner if they attempt to attack or escape.

At night the sentinel will cock his piece as persons approach his post and then challenge and advance them in a clear tone of voice as prescribed in the Manual of Guard Duty; subsequent action will be as indicated in the preceding paragraph.

Deserters will be required to lay down their arms; the commander of the picket will send out a patrol to bring them in. Deserters pursued by the enemy will be ordered to drop their weapons, and the picket will be alarmed. If they fail to obey the order the picket will open fire.

Bearers of flags of truce and their escorts will be halted and required to face outward. They will be blindfolded before being taken to the commander of the picket. No conversation with them is permitted. The commander of the outposts will be notified of their arrival.

A sentinel will not assume a sitting or lying position at night, except when specially authorized or ordered to do so. In the daytime a sentinel will make full use of natural or artificial cover and assume such positions as may be necessary, but without impairing his power of observation. He may carry his weapon at will, with muzzle elevated. The presence of a superior must not be allowed to interfere with observation of the enemy. Patrols touching his post will be informed of what he has seen.

171. The *special orders* of a sentinel should cover the following points: The number and designation of his own post; the number and position of adjoining posts; the position of the examining post,

the picket and the support, and the best way thereto; the position of advance detachments; where the roads lead to; the names of villages, streams, and prominent features in sight; the countersign, if one is issued.

Detached posts.

172. Detached posts consist of from 3 to 12 men under a non-commissioned officer or an officer, and are detained for special purposes. Thus, detached posts may be sent out to hold points which are of importance for the outpost cavalry, such as a ford or a junction of roads; or to occupy positions especially favorable for observation, but too far to the front to be included in the line of observation; or to protect the flanks of the outpost position. They may be detached from a picket, a support, or the reserve, according to location. They may also be employed to keep up communication between the main body and the reserve at night and between pickets which are placed far apart.

Special orders will be given to the commander of a detached post by the commanding officer sending him out. The men will be constantly under arms, and no fires will be made. Detached posts should be relieved every six hours, if practicable.

Examining posts.

173. These are double sentinel posts stationed on important roads or at designated points. Their reliefs, and such additional men as may be necessary, are close at hand under cover, the whole being under command of a noncommissioned officer, or of an officer in important cases. Persons not clearly recognized as belonging to our troops will be halted by the sentinels, whether coming in or going out, and will then be examined by the commander, who either allows them to pass or has them conducted to the commander of the picket. Strangers approaching other points of the line are generally passed on to the examining post.

174. Although the employment of examining posts is not general in field operations, their duties being performed sufficiently well by intelligent sentinels and noncommissioned officers, there are many occasions when their use is highly important; for example, when our soldiers do not speak the language of the country or of the enemy, in which case interpreters will be necessary at examining posts; when preparations are being made for a movement and strict scrutiny at the outposts is ordered; at sieges, whether in attack or

defense; or when a force holds the seaports and the enemy can not obtain information or supplies except by passing through the lines.

No one except the commander is allowed to speak to persons presenting themselves at the examining post. Prisoners and deserters will be sent to the rear at once under escort.

The commander of the examining post is held to strict compliance with his instructions and should be careful that strangers do not have an opportunity to observe the dispositions of the outpost troops.

Relieving the outpost.

175. Cossack posts and sentry squads should be relieved every six hours—in trying weather every three hours, if practicable. It will be an advantage if the sentinels going on duty at night have become acquainted with the ground by the performance of duty at the same place in the daytime.

Pickets and supports should be relieved every twenty-four hours. The whole outpost should ordinarily be replaced once a day, but it may be kept on duty for two days. All movements should be made quietly and under cover.

The relieving force must be formed in time so that its supports and pickets may replace those on duty at daybreak, this hour being chosen in order to have the advantage of double strength at the time of special danger.

176. Commanders of the various fractions of the old outpost, from reserve to cossack post, and sentinels on post, turn over their instructions and special orders, written or verbal, with latest information concerning the enemy, and explain the important features of the country. With a similar object the first patrols will, if practicable, be composed of men of both the old and the new outpost. Upon completion of these dispositions the old supports draw in their outlying detachments and return to their reserve, which then joins the main body; or the supports may each return to the main body by the most convenient way, preceded by the reserve.

When relieved by an advance guard, the outpost resumes its place in the main body as the column passes.

Outpost patrols.

177. Outpost patrols are divided into those which operate beyond the lines and those whose duty lies principally within the lines. The former, called *reconnoitering patrols*, examine the ground in the

direction of the enemy; the latter, called *visiting patrols*, maintain communication between the parts of the outpost and supervise the performance of duty on the line of observation.

178. The system of patrols should be so arranged as to make exploration continuous. Although scouts and detachments of cavalry will remain in contact with the enemy, or at least be pushed forward to a considerable distance, more detailed exploration by infantry patrols in the foreground must not be neglected. The best results will be obtained only by careful selection of the members of patrols, especially of the leaders.

179. *Reconnoitering patrols* are composed of at least two men and a skillful leader who, in important cases, should be an officer. The knack of quickly finding one's way in a strange country; indefatigability born of pleasure in the work; presence of mind and shrewdness, which in moments of danger always manage to surmount difficulties, are desirable qualities for duties of this kind. The strength of the patrol varies according to circumstances and may even consist of an entire company or troop.

180. The object of patrols is not to fight, but to obtain information, ascertain the presence of the enemy, or discover his approach.

Patrols move cautiously and silently; they halt frequently in order to listen; they make themselves familiar with the ground so as to be able to report on it and, if necessary, to act as guides; they guard against danger of being cut off, sometimes by taking a different return route. They usually go in light marching order. It may be necessary to indicate the time for their return. The rattling of equipments and glittering of metallic parts must be prevented.

181. All patrols, when they cross the line of observation, must communicate to the nearest sentinel the direction in which they are about to advance; on their return they will similarly report what they have seen of the enemy within the nearest sentinel's range of observation.

182. Any ground near the line of observation which might afford cover for bodies of troops, or for scouts or spies, and the entrance to which can not be observed by sentinels, should be frequently searched by patrols.

183. Definite information concerning the enemy should be reported at once. The patrol will not fire unless danger to its members or the command is imminent.

Pickets on the flank of an outpost position will cause some of their patrols to explore toward the outward flank.

184. *Visiting patrols* usually consist of a noncommissioned officer and two or three men. They are sent out by the picket every hour

or two to the support, the adjoining pickets, and the sentinels. They examine suspicious points too distant for the sentinel's inspection, relieve sick or wounded sentinels, and take charge of detained persons.

Visiting patrols and reliefs should not expose the position of concealed sentinels by marching in the open.

Carabry outposts—Outpost cavalry for mixed commands.

185. The distribution and duties of cavalry outposts conform in a general way to what has been prescribed for the outposts of mixed commands. The principal modifications result from the greater mobility of the cavalry and the necessity of providing for proper care of the horses.

186. As cavalry usually covers a wide extent of territory in the performance of its duty, and must, moreover, take advantage of scattered watering facilities and stores of forage, it will seldom be practicable to assemble large bodies in restricted spaces for the night and protect them by continuous lines of outposts. Each camp or bivouac will generally be required to furnish its own outposts, the strength of the latter depending upon circumstances.

187. Proximity of the enemy and hostility of the inhabitants will entail arduous duty in the service of protection; it must, however, be confined to the lowest limit consistent with safety in order to preserve the efficiency of the command.

188. Far-reaching patrols will protect cavalry against surprise by infantry, affording sufficient time to make preparations to meet the attack by dismounted fire, or to recover freedom of action by withdrawing from camp. But a rapid and determined advance of hostile cavalry will suffer but little delay if opposed only by the mounted shock action of weak outposts.

189. When the roads are blocked by a succession of obstacles defended by dismounted men, even superior forces of cavalry may be held in check. By holding villages, bridges, fords, defiles, etc., with their rifles, cavalry outposts will contribute more to the security of the main body than by mounted action.

Mounted engineer troops may be utilized in preparing obstacles and strengthening positions.

190. When cavalry is encamped on a wide front it covers itself by sending forward only outpost squadrons or outpost troops, which act as supports to and are protected by smaller bodies. In the exceptional cases when large bodies of cavalry are closely concentrated, outpost reserves may be added to this formation.

191. The *line of resistance* is occupied by the supports (outpost squadrons) placed in favorable locations, further strengthened by obstacles, intrenchments, etc., at a distance of about 2,000 yards from the reserve, or from the main body when there is no reserve.

192. The *supports* send forward about half their strength as pickets and cossack posts, which are placed about 1,200 yards from their supports and furnish the vedettes for the line of observation.

A squadron of cavalry as a support will, with its pickets, cossack posts, and vedettes, cover a front of about $2\frac{1}{2}$ miles.

193. The *pickets* are placed on or near the roads and, in addition to one or more double vedettes, furnish patrols according to their strength, which generally is not less than a platoon of 24 men.

194. *Cossack posts* consist of groups of 4 mounted men, 1 of them being designated as the leader. They take position under cover, dismounted, near the line of observation, and place 1 man, dismounted, as a vedette in the nearest position favorable for observation, seldom more than 50 yards off. The horses are held or securely tied.

Cossack posts are usually sent out from the support, but a picket may post a portion of its vedettes in the same way, and the reserve and main body may use special cossack posts. At night the number or strength of cossack posts and their vedettes may be doubled.

195. When the distance of double vedettes from their pickets does not exceed 100 yards the horses will, whenever practicable, be left with the picket. At greater distances, up to about 600 yards, a third man should be sent along to hold the horses of the other two; or cossack posts may be established.

196. Cossack posts and pairs of vedettes are placed from 400 to 600 yards apart. The position of vedettes should be carefully selected, advantage being taken of high points to increase range of vision.

A single sentinel will be posted at the picket; supports will establish a single sentinel or one or more double sentinels.

Connecting vedettes are generally mounted, or at least have their horses at hand.

197. The commander of the support will designate examining posts when necessary. In accordance with the military situation and the orders he has received he will arrange for feeding, watering, cooking, and for shifting of saddles; he will also provide for the subsistence of his advance troops. His usual position is with the support, but for purposes of instruction and inspection he goes where his presence may seem necessary. Upon arrival of superiors he reports to them.

198. In close country observation must be supplemented by active patrolling. The principal reliance will be placed on the reconnoitering patrols sent to a distance to find the enemy. After gaining contact they must remain in touch, day and night. They must be strong enough to be able to send messengers whenever necessary; hence occasional reinforcement will be required.

199. Vedettes and sentinels are relieved every two hours, or oftener in severe weather. Cossack posts are relieved every twelve or six hours, according to the weather. Their horses should neither be unsaddled nor unbridled; everything must be in readiness for instant action.

Pickets and detached posts will not unsaddle or unbridle at night. During the daytime cinchas may be loosened and saddles shifted one-third at a time. Feeding and watering may also take place one-third at a time. Horses being fed should be removed a short distance from the others.

Pickets and cossack posts should prepare positions from which they can fire with effect and have the advantage of cover. It is to be accepted as a general principle that, in resisting an enemy, all parts of a cavalry outpost will place their chief reliance on the use of firearms; consequently arrangements must be made for such use to the best advantage.

200. In certain cases it may be of advantage for vedettes to remain mounted, but as a general rule, careful observation, especially with field glasses, can only be carried on dismounted.

201. The outpost cavalry is usually drawn from the divisional cavalry, or from the cavalry assigned to a separate command. The commander of the whole force will decide how much cavalry is to be included in the detail for outpost duty, bearing in mind the amount of cavalry available, its condition, the nature of the country, the state of the weather, etc.

202. The commander of the outposts will, in outpost orders, prescribe the distribution, both by day and by night, of the cavalry assigned to him.

It may be employed as follows:

1. By day it may form an advance screen several miles beyond the line of observation. At night the bulk of this force will usually be drawn in to the reserve, but patrols or small detachments would still be left in touch with the enemy, and at bridges, fords, and on the main roads in front of the position.

2. It may be used for purposes of reconnaissance and to keep up communication with bodies of independent cavalry in the neighborhood.

3. If it is considered advisable, in order to allow the horses to recuperate, or for other reasons, not to send cavalry far in advance of the line of observation, small detachments may be turned over to the commanders of the supports for patrolling, the remainder being held with the reserve.

4. When infantry has been severely taxed by marching or fighting, a large part of the outpost may temporarily be formed of cavalry.

5. When the number of mounted orderlies of infantry is for any reason insufficient, a few troopers may be assigned to the reserve and the supports for orderly duty.

6. Detached posts in distant or exposed positions may be occupied by cavalry during the daytime. When ample cavalry is available the infantry may, in open country and during clear weather, be relieved of a considerable part of its duty on the line of observation during the daytime by placing cavalry cossack posts at such points on or beyond the line as afford an extensive view of the country.

203. The general line to be occupied by the advance screen will be indicated by the commander of the outpost, but all the details should be left to the commander of the outpost cavalry.

ARTICLE V.

MARCHES.

GENERAL PRINCIPLES.

204. The principal work of troops in the field consists in marching. Battles come as occasional incidents in a campaign, but marches are of daily occurrence. Marching forms the basis of all operations, and success depends in a large measure upon its reliable execution. The mere fact of the punctual arrival at designated points of bodies of troops in good condition for battle may be of decisive importance.

205. Marches are executed in accordance with rules which vary with the military situation and distance from the enemy. They may be classified as follows:

(a) Ordinary marches, made on occasions when proximity of an enemy is out of the question, such as changes of station by marching in time of peace, marches to or from landings or railroad stations, marches of concentration at great distance from the front, etc.

(b) Marches in campaign, made in the theater of war, when contact with the enemy is possible or probable.

(c) Marches into action, preparatory to or during deployment, with a view to an immediate attack or the occupation of a defensive position, the enemy having been located.

(d) Forced marches. Whenever unusual exertions are demanded of troops on the march in order to hasten their arrival, the result is a "forced march." In such cases the number and duration of the halts are diminished, the pace, especially of mounted troops, may be accelerated, the rests are reduced to the time necessary for cooking or feeding and the indispensable repose of the troops, and the movement continues, day and night, until destination is reached.

The term "forced marches" is also applied to a succession of marches of more than ordinary length.

(e) Night marches. Heavy fog, severe storms, or blizzards may limit the range of vision and bring about conditions similar to those which make night marches difficult.

(f) Practice marches, which are made with a view to exercising and instructing a command, or of accustoming it to field service.

With mounted troops and pack trains it is especially desirable that the backs of animals be hardened before entering an arduous campaign. Such marches afford an excellent opportunity for inspection of the field equipment, and contribute materially to the health and discipline of a command during periods of prolonged inactivity.

206. Unseasoned troops suffer severely on the march. The ranks of the infantry are depleted by the sick and foot-sore, the efficiency of the cavalry for mounted work is impaired and eventually destroyed by the prevalence of sore backs, and the horses and mules of field artillery and trains suffer with contused shoulders and go lame. Advantage must therefore be taken of every opportunity to accustom the troops to marching and thus to gradually bring the feet and muscles of the men and the backs or shoulders of animals into condition permitting severe and prolonged exertion.

207. The most important factors in maintaining and enhancing the marching efficiency of troops are strict discipline on the march and in camp, good food properly prepared and served at suitable hours, avoidance of excesses in eating and drinking, hygienic clothing, and care of the feet of the men and of the hoofs and backs of animals.

Intestinal disorders of young soldiers are due as much to the manner of eating and drinking as to the nature of the food consumed. In the Tropics special care of the person and moderation in the indulgence of appetite are essential to the preservation of fitness for work.

Subordinate officers will therefore have the men and animals of their units under constant observation, and make frequent inspections and inquiries with a view to immediate application of the remedies that may be suitable, at halts or in camp.

208. It is the duty of every commander on the march to be continually on the alert for opportunities—within the limits dictated by the military situation and regard for the discipline and health of the command—to ease the hardships of the troops. All unnecessary exertions waste the reserve strength of men and animals, and uselessly impair the fighting efficiency of the command.

ELEMENTS COMPOSING COLUMNS.

209. Columns on the march are composed of the troops, their light and regimental trains, the ammunition columns, the provision and forage columns, and of other parks, trains, and depots, depending upon the size of the force.

Bodies of cavalry of considerable size should not form part of the same column with foot troops, except in clearly necessary cases. The difference in the rate of marching is very tiresome to cavalry and tends to produce sore backs.

210. The led horses and the prescribed vehicles or pack animals constitute the train of the troops. It is divided into the light train, which is required by the troops during an action, and the regimental train, which is not utilized until the command goes into camp or bivouac.

211. The rations, forage, and material of war consumed by the troops are replaced by drawing from supply trains. The ammunition columns, one for each of the three divisions and one as a corps reserve, are in charge of trained officers and men.

The provision columns, horse depots, etc., generally remain at a safe distance in rear and form a distinct column, or move in a succession of separate columns.

ORDER OF MARCH.

212. Protection for columns on the march is provided by the cav-
alry, the advance guards, flank guards, and rear guards assigned to such duty.

The other elements of the column march in the order demanded by the tactical situation.

213. The artillery as a rule should be well up toward the head of the column, so that its entrance into action may be expedited. However, for reasons of security, it should not form the leading element of the column; also, the arrival of the infantry must not be delayed by too large a mass of artillery near the head.

In the march of a corps on a single road the batteries of the leading division which are not with the advance guard would ordinarily be well placed behind the leading regiment of the main body; the corps artillery in rear of the leading division, and the batteries of the other divisions in rear of their leading brigades.

If all the batteries of the first division be in the advance guard, then the corps artillery may be pushed up nearer to the head of the column. In a strategical pursuit, if there is good opportunity for its employment, for example, in forcing a crossing or to intercept the enemy's march, the bulk of the artillery may be placed near the head of the main body. On the other hand, while marching through long defiles or dense forests, and on night marches, it might be placed at the end of the column.

In smaller commands similar principles apply, except that columns not larger than a brigade seldom have artillery with the advance guard.

214. The order of brigades in the division, regiments in the brigade, battalions or squadrons in the regiment, and companies, troops, or batteries in the battalion, squadron, or group, should change in a column on the march from day to day, the unit at the head of the column one day taking its place at the rear the next day, and so on.

The commanding officer will make such changes in this system as he may deem necessary, in order to avoid fatigue, or for other sufficient reasons.

215. Every body of troops is accompanied by its light train, which marches at the rear of the unit to which it belongs. However, it may be desirable to have the ammunition wagons assembled at the rear of larger units, for example, the regiment, brigade, or advance guard.

On ordinary marches the regimental trains, each under a quartermaster, assembled and *arranged in the order of march of the troops*, march in rear of the whole column of troops under the orders of the chief quartermaster of the command. At the end of each day's march the trains will join the troops to which they belong.

When contact with the enemy is expected, the assembled regimental trains march at sufficient distance in rear, or in advance in a retrograde movement, to avoid incurring danger or hampering the operations.

When two or more divisions march on the same road the disposition of the trains will vary according to circumstances. To have each division followed by all its trains, is an arrangement not to be expected, except when there is no danger of encountering the enemy. Usually, in campaign, in order that a portion of the supplies may be of easy access, the whole of the trains is divided into two parts. The components of the first part may march in rear of their divisions, but oftener at a distance of about seven miles in rear of the column. The second part is kept further to the rear, and may be directed to go into park and await orders.

When an engagement is confidently expected, some of the sections of the ammunition columns must be near enough to the troops to be able to replenish the supply of ammunition during and immediately after an engagement. One of the field hospitals for each division should also be close at hand, if possible ahead of the ammunition sections.

The regimental trains are not brought up until after the close of the engagement.

216. The different units of the column, in the trains as well as in the troops, are separated at the start by distances prescribed by regulations or by the commander. These distances are temporarily increased or diminished according to circumstances, thus facilitating uniform progress without checks, and with a continual tendency to gradual resumption of normal distances.

FORMATION OF THE COLUMNS.

217. When columns of troops are to be placed on the road their departure will, as a rule, not be preceded by a general assembly and formation of the command.

When the troops occupy quarters, camps, or bivouacs at some distance from the road to be followed, the column is formed by the successive arrival of the elements at an initial point. The commander fixes the initial point after considering the position of the troops and the roads by which they can join the column; as a rule it will be located in the direction of the proposed march. He also prescribes the hour at which the elements shall pass the initial point and, if necessary, the routes to be followed in reaching it. He may designate special initial points for bodies of troops which would be spared needless detours thereby.

The commanders of subordinate units examine the route to be followed, calculate the time required, and fix the start of their commands accordingly. They may designate intermediate initial points. In each case the initial point should be of easy access, consequently it should not be placed at the exit of a defile, village, or forest.

When the troops are located along or near the road to be followed, the column is formed by starting the large units at a suitable time. The commander prescribes the hour of departure for the principal elements, and subordinate commanders issue corresponding instructions to the fractions under their orders.

When troops march in parallel columns, sections of the country may be assigned in which the roads and resources shall be reserved to their exclusive use.

218. On the march the troops will, as far as practicable, keep to the right side of the road, leaving the left free for circulation. When the roads are narrow, space should still be given for single mounted men to pass freely up or down the column. When the roads are soft with mud or deep with sand, it may be advisable to divide the

column longitudinally, thus permitting men and animals to pick their way with better footing and leaving the middle of the road clear. The suffering from heat and dust may also be materially reduced by this method. But, whatever the widening of the column thus produced, increase of length of the road space occupied by any unit should not be permitted, as this would lead to straggling and lengthening of the column.

219. Infantry will usually march in column of fours—column of twos when necessary; cavalry in column of fours on good roads or when compact formation is desirable, otherwise in column of twos; artillery in single column of carriages (column of sections). On trails, troops will have to march in column of files or troopers, often with increased distances between individuals. In marching across country the commander will order such formation as may be advantageous, taking into consideration the tactical requirements of the case, the constant object being to expedite the movement and prevent undue elongation of the column.

PRÉPARATION FOR A MARCH.

220. As soon as orders for a march are received the commander of the column studies the best maps available and endeavors to gain all the information obtainable concerning the country and the roads by which he is to march, and investigates the possibility of communicating with parallel columns. When necessary he secures well-informed inhabitants of the country to serve as guides. Pioneer detachments under a commissioned officer are sent out to precede the column for the purpose of removing obstacles and preparing the way for the troops.

221. When practicable an officer is sent ahead to make arrangements for camp sites, grazing, fuel, and water; and when necessary, supplies of forage and rations are deposited along the route or procured from the inhabitants in advance.

222. The commanding officer will assure himself, through reports from subordinate commanders and staff officers and by personal observation, that the men of the command are in fit condition for the march; that they are provided with good arms, suitable equipment, and ample ammunition; that animals are properly shod and the train provided with spare parts; that suitable means are provided for the care of the sick, and that the reserve supplies of all kinds are sufficient for ordinary emergencies.

THE START.

223. When practicable, the march should begin in the morning after the animals have been fed and the men have had their breakfasts. The canteens should be filled with water, or weak coffee or tea, and, when the prompt arrival of the wagons is at all doubtful, the men should carry one cooked meal in their haversacks or saddlebags. The fires are put out, latrines filled, and the camp policed before departure.

224. The hour for the start depends upon circumstances. The military situation, the length of the march, and the state of the weather may require an early start, especially in midsummer and in the Tropics. In ordinary cases a later start is of benefit to the troops; animals and young men rest well in the early morning hours. Therefore, as a rule, foot troops should not start before daylight; mounted troops about an hour later. This is especially advisable for mounted troops (if grazing is depended upon), as animals eat more freely in the morning.

Ample time should be left after a seasonable reveille for the men to breakfast, animals to feed, and the wagons or mules to be packed.

Every duty of the camp, on a march at a distance from the enemy, should be performed according to calls sounded under the direction of the commanding officer.

Reveille and stables should take place at an hour designated the evening before.

The signals for striking camp and putting the command on the road, such as the general, boots and saddles, etc., should be ordered by the commanding officer. No signal should be sounded until the duties pertaining to the preceding one have been completed. Undue haste leads to confusion, ill temper, and badly conducted preparation, which may affect the tone of the command during the whole day. After the general has sounded, one or more officers of each organization should superintend the preparation for the march.

225. Troops should never be permitted to start before the designated hour. In small commands on an ordinary march, when difficult conditions of the road are anticipated, it may be desirable to permit the wagon train to start before the troops. This is especially applicable to mounted commands which may thus secure time for grazing and still easily overtake the train before arrival in camp.

Commanding officers, of whatever rank, are enjoined not to increase the fatigue of the troops by prolonged waiting under arms before the start.

The departure of an element of the column should never be delayed. If the commander is not present at the head of his troops at the proper time, the officer next in rank starts them off, for otherwise the prescribed plan would be destroyed.

THE RATE AND LENGTH OF MARCHES.

✓ 226. The rate of progress of a mixed command is regulated by that of the foot troops. It varies with the nature of the country, the condition of the roads, the season of the year, the state of the weather, the length of the march, the size of the command, and the morale and physical condition of the troops. It is of great importance that a uniform rate be maintained throughout the column. The officer who sets the pace at the head of the column should bear in mind that the units in rear are at a disadvantage and that an irregular pace tends to produce alternate checking and hurrying, which is destructive of the condition and temper of the troops. When a change in the pace is to be made, warning should be sent to subordinate commanders.

✓ 227. For infantry, the rate prescribed for drill is 3.4 miles per hour; on the road the maximum to be counted on while marching is 3 miles per hour—including halts, $2\frac{1}{2}$ miles per hour. Sandy, muddy, or slippery roads, great heat and dust, strong head winds and storms, or broken country reduce the rate of progress. When it is necessary to climb hills, or to wade through swamps, or across submerged fields, a very liberal allowance must be made in time calculations. The rate for infantry columns, under average conditions, may be assumed at $2\frac{1}{4}$ to $2\frac{1}{2}$ miles per hour. Thus, for a march of 15 miles, a period of six to seven hours is necessary.

✓ 228. For cavalry, the usual marching gait is the walk. Although small commands can be trained to make nearly 4 miles an hour under favorable conditions, the rate for forces larger than a squadron will be about $3\frac{3}{4}$ miles per hour. Allowing for halts, the rate would be $3\frac{1}{2}$ to $3\frac{1}{2}$ miles per hour. Thus a march of 15 miles at a walk would require four and one-half hours. When the weather, the roads, and the horses present favorable conditions, the marching rate should be about 5 miles per hour after the first halt, alternating the walk and trot, and occasionally dismounting and leading for short distances. Level ground is utilized for the trot.

✓ 229. In ascending or descending steep slopes cavalry, artillery, and men riding on wagons who are able to walk will be required to dismount. In cold weather, or when men are tired of riding, this is a measure of relief, which should be applied when desirable.

The gait should be slow enough to enable all the horses to keep up without undue exertion. When the walk ~~at the head of the column~~ is too fast, the troopers in rear are forced to trot every minute or two in order to preserve their distance; a fast trot makes a gallop necessary at the tail of the column, the evil in each case increasing with the length of the column. Such methods destroy the uniformity of the march and are extremely fatiguing to both men and horses; they lead to the ruin of cavalry commands, even on ordinary marches in time of peace.

230. The periods of trot alternating with the walk should not, as a rule, exceed ten to fifteen minutes in duration; too frequent changes of gait also are undesirable.

In order to facilitate taking advantage of level stretches of ground for trotting, especially in undulating country, liberal latitude as to distances should be allowed to commanders of subordinate units on ordinary marches, or at considerable distance from the enemy.

231. For field artillery the habitual gait is the walk, ~~3½ to 3¾ miles~~ per hour. On rapid marches the slow trot alternates with the walk. Horse artillery adopts the rate of the cavalry.

The rate of wagon trains varies with the class of draft animals, the size of the load, the length of the columns, and the condition of the roads. While large mules drawing light loads on good roads can do nearly 4 miles an hour, in long columns a rate of 2 miles, and in smaller commands $2\frac{1}{2}$ miles per hour, including halts, is all that can be expected under favorable conditions.

232. The length of the average march for infantry and for mixed commands consisting partly of foot troops is 15 miles per day, with a day of rest at least once a week. Small commands of seasoned infantry marching on good roads in cool weather can cover 20 miles per day, but in extensive operations involving large bodies of troops the average rate of progress will not exceed 10 miles per day. Field artillery marches 15 to 20 miles a day; cavalry, after men and animals are hardened, 25 miles a day; wagon trains about the same as infantry.

ROAD SPACES.

233. The normal distances, *in the clear*, between units on route marches, should be the same as those prescribed in drill regulations for troops marching at "attention." A change in the normal distances will be ordered by the commanding officer when the circumstances justify such action.

For approximate calculations we assume 2 men per yard for foot troops, 1 man per yard for mounted troops, and 20 yards for each

gun, caisson, or wagon. For troops at war strength the road spaces, including distances, will be about as follows:

Company.....	yards..	60
Battalion.....	do.....	250
With regimental train	do.....	325
Regiment.....	do.....	800
With regimental train	do.....	1,050
Troop.....	do.....	100
Squadron.....	do.....	450
With regimental train	do.....	600
Regiment (cavalry).....	do.....	1,300
With regimental train	do.....	1,850
Battery.....	do.....	350
With regimental train	do.....	400
Infantry brigade.....	do.....	2,500
With regimental trains	do.....	3,400
Division (part of corps).....	do.....	12,000
Division with all trains	miles..	11
Army corps, with all its auxiliary troops and trains.....	do.....	35
Cavalry division, complete	do.....	10

These spaces are only slightly greater than the requirements of drill regulations. On the march, after a command is straightened out on the road, a certain amount of elongation always takes place. In calculating the length of a column further allowance must therefore be made in accordance with circumstances—sometimes as much as 25 per cent. An increased distance between units at the start will diminish subsequent lengthening of the column.

DETAILS OF A MARCH.

234. As soon as the head of the column takes the road after leaving camp the commander orders the ~~route step (route order for cavalry and artillery)~~. After marching half to three-fourths of an hour the troops are halted for fifteen minutes to allow the men to relieve themselves and to ~~adjust~~ their clothing and accouterments. In small commands it will be possible to exercise judgment in selecting the place for the first halt; it would be undesirable to stop the command in the streets of a village or other place which would defeat one of the objects of the halt.

After the first rest there should be a ~~halt of ten minutes every hour—that is, the troops march fifty minutes and then halt ten.~~ This is not intended to be a rigid rule, but may be modified according to circumstances. In very hot weather, for example, it may be necessary to make the halts longer and more frequent.

As a rule troops prefer to finish their day's work as soon as possible. In good weather with favorable temperature long halts will

not be desirable for marches of less than about 15 miles for infantry or 25 miles for cavalry. When the day's march is to be prolonged so that it will run well into the afternoon, a halt of about one hour near mealtime will often be of advantage. Staff officers or mounted men should be sent ahead to find a suitable place for this halt; wood, water, grass, dry ground, and shade are desirable features. Notification as to the proposed length of the halt should be circulated. Arms are stacked and equipments removed; the cavalry dismount and loosen cinchas.

235. In commands not exceeding a regiment, and in wagon trains of less than a mile in length, the halt may be simultaneous, the signal from the head being promptly repeated. The heads of units halt, the elements thereof close up, mounted troops and drivers dismount, and men are permitted to fall out if necessary.

In longer columns it will be necessary to make arrangements so that the march of organizations shall not be impeded by halts of those preceding them. This may be done by causing the infantry and cavalry with their light trains to leave the road clear while resting, so that the units may to a certain extent overlap; or the watches of adjutants may be made to agree before starting, and the regiments, squadrons, and batteries all halt and start off again at prescribed moments. The artillery and trains remain on the road.

236. In the cavalry the hourly halts are of shorter duration—five minutes—and advantage is taken of the opportunity to examine the horses' feet, adjust saddles, and tighten cinchas if necessary. In the field artillery the halts are from five to ten minutes; the harness is adjusted, girths tightened, etc.

237. In ascending or descending slopes, crossing streams or other obstacles, or passing through defiles requiring a reduction of front, every precaution should be taken to prevent interruption of the steady progress of the troops in rear. If the distances are not sufficient to prevent checks, units should be allowed to overlap; streams and similar obstacles should be crossed at several places at the same time; and while passing through short defiles the pace should be accelerated and the exit cleared at once. In case of delay while crossing an obstacle the head of a company, troop, or battery will slacken its pace or halt beyond the obstacle until all have passed; a faster pace, if necessary, will then be taken up by the unit in a body.

The commander of the column should be constantly informed by the leader of the advance guard, or by staff officers designated for that purpose, of near features of the road likely to delay the march, with indication of remedies available.

238. No man shall leave the ranks without permission of the company or higher commander. If the absence be for a few minutes only, the man will leave his rifle with the company; if he needs medical attention he is sent—if necessary, assisted—to the surgeon with a pass showing his name, company, and regiment. The surgeon returns the pass stating disposition made of the man, who may be admitted to the ambulance, permitted to ride on a wagon of the train, or simply to fall out and rejoin at the end of the day's march, coming in with the rear guard.

When soldiers are separated from their commands on account of wounds or sickness, their arms and equipments will accompany them if practicable.

The horse, saber and horse equipments of a mounted soldier who is admitted to the ambulance or to the hospital are taken back to the troop by the noncommissioned officer who accompanied him.

239. A police or provost guard under an officer marches at the rear of the column of troops in cases where there is no regular rear guard or where it is too far away to be effective for police purposes. An assistant surgeon, with necessary equipment and transportation, should form part of this guard.

It is the duty of all officers and noncommissioned officers to prevent straggling. All enlisted men found away from their organizations without authority will be arrested; they will be returned to their commands at a favorable opportunity, with a statement as to the circumstances of their apprehension. Towns and villages through which the column has passed, and if necessary the country along the road, will be searched by patrols. All persons, whether soldiers, camp followers, or inhabitants, found pillaging, marauding, or committing crimes will be arrested, to be dealt with according to the rules and custom of war.

The guard also takes charge of prisoners captured from the enemy and sent to the rear.

In commands larger than a brigade a provost marshal is furnished with a suitable force and has charge of the police of the camp and the column, or of such portions as may be assigned to him.

240. On the march the company commander goes where his presence may be necessary; his usual place is at the head of the company, but he should occasionally allow it to march past him, in order to observe the condition of the men. When more than one officer is present with a troop or company, one of them will be required to march at the rear of the organization.

The commanding officer of a larger unit informs himself from time to time, especially after passing obstacles, by personal observa-

tion or by means of staff officers, of the state of progress of the subordinate units in rear and of the condition of his command.

When a cause of delay—for example, a damaged bridge—is met with, the commanders of units in the column and of troops farther to the rear should be notified of the minimum length of the delay; the troops then conduct themselves as they would at halts.

241. In the cavalry constant vigilance is necessary to see that the men ride properly. Lounging in the saddle, and spurring or fretting of horses to make them canter, should be promptly followed by punishment.

If the horse apparently refuses to trot the rider may be required to fold his arms while the horse is being led, or he may be changed to another horse, or moved to a place near the head of the troop.

The appearance of the troops should be uniform. Necessary changes in the clothing should be anticipated by an order.

242. One of the greatest sources of hardship for troops on a march, especially for infantry, is hot weather. The best way to counteract its effect and prevent heat stroke is found in the proper use of drinking water.

The excessive drinking of water is injurious; its consumption is largely a matter of personal habit. Under ordinary conditions a canteen of water should last a man a day. Many men do not drink at all during the marching hours. All soldiers should be trained to an economical use of water and to keeping a small reserve until an opportunity comes to replenish the supply; officers should set a good example in this respect.

This training is of special value when water is scarce or is known to be infected with harmful bacteria. When marching through country in which cholera is prevalent such restraint becomes imperative.

It is the duty of commanding officers to afford sufficient opportunities for drinking good water and replenishing canteens, but it should be done by order, not by straggling from the command. A medical officer near the head of the column may be called upon to decide whether water is fit to drink. In certain cases the advance guard may require the inhabitants to place water in vessels along the line of march for the convenient use of the troops. On long marches through country deficient in water, or infected with cholera, it will be necessary to carry along a supply in wagons.

243. The watering of cavalry horses on the march depends largely on the facilities available. In hot weather, or if nothing is known about the water supply of the country over which the day's march

is to be made, water call should be sounded shortly before leaving camp and every horse allowed to drink. Good opportunities for watering on the road should not be neglected, as this is of great benefit in hot weather and on severe marches.

In order to avoid delay, as many troops as possible must water at the same time. As the head of the main body approaches a suitable stream or other body of water, a guide from the advance guard should be ready to show the best routes of access thereto and of return to the road, fences being cut or taken down for that purpose, if necessary.

Horses must be watered quietly and without confusion; the manner in which this duty is performed is often a good test of the discipline of a mounted command and of the efficiency of its officers.

The animals of artillery and wagon trains may be watered from buckets or by unhitching and riding or leading to water. With large commands this requires so much time that it usually is limited to occasions when troops are in camp—before departure and after arrival—or when they are making a long halt.

244. While marching through high grass or snow the unit at the head of the column which is breaking the road should frequently be relieved.

245. In midsummer and in semitropical or tropical regions it will often be better to start quite early in order to avoid the heat of the middle of the day. When a rather long march is to be made under such conditions the command might rest for three or four hours during the hottest part of the day and then finish the march in the evening.

The nature of the means of transportation may be such that "nooning" will be unavoidable. As a general proposition, however, it is very undesirable to arrive at a strange place after nightfall or even late in the afternoon.

Halts should not be made in or near towns or villages unless it is necessary to secure water or supplies. In such cases the men will be kept in the column, details being sent to procure whatever may be necessary.

246. When a band accompanies the troops it may under favorable conditions be required to play at the long halts. While marching through garrisons the command should be called to attention and the band or field music required to play a march. Similar action may be prescribed while the command marches through a town.

247. As the column approaches destination all the arrangements should be complete for putting the command into camp without delay or confusion. The staff officers who preceded the column to

locate a camp return to meet their commanding officer and then act as guides to conduct fractions of the command to designated grounds. In case the troops are to march into a garrison or camp already occupied, notice of the arrival of the column is conveyed in advance to the commanding officer, and he is consulted as to camping or housing the command. When troops are to occupy buildings in a town the distribution and assignment should be worked out in advance of their arrival.

As soon as a command arrives at the place where it is to camp, guards are placed over the water, the portions selected for drinking or cooking water, for watering of animals, and for bathing and washing being designated.

Latrines should be dug as soon as tools can be had, restricted localities being assigned in the meantime. Details are made to secure wood and water. No man is allowed to leave camp without authority.

248. A column of troops on the march should not, under ordinary circumstances, be cut by another. If the heads of two columns should meet, at a distance from the enemy, the senior commander would have the right of way; if near the enemy, the senior would have the responsibility of determining what measures should be taken, considering the orders received from higher authority.

A column in march which finds another halted may pass on, provided the commander of the marching column be the senior, or in case the other commander does not desire to avail himself of his privilege immediately.

In each case the column which advances first is followed by its light train; the other trains wait for the other column with its light train to pass, but precede the regimental trains of the latter.

249. As a rule no honors are rendered by troops when on a march. Individual officers and soldiers salute only when they have business with commissioned superiors or are addressed by them.

SPECIAL REGULATIONS.

(a) *Ordinary marches.*

250. On marches of this nature, all danger from an enemy being precluded, the principal object is to facilitate the movement and diminish the hardships of the troops.

Ample notice should be given so that troops may make preparations without haste.

The formation of long columns and the combination of troops of different arms of the service in the same column are to be avoided if practicable.

The distances between the elements of a column may be materially increased so as to afford greater freedom of movement. In very hot weather and on dusty roads the command may thus be divided into fractions no larger than a company.

The regimental train may be permitted to follow immediately in rear of the regiment to which it belongs, and the supply columns may be placed so as to facilitate issues.

At the end of the day's march the camps are established along the road, having regard for facilities for wood, water, and grazing.

Lateral movements are thus avoided, and the elements may resume the march almost simultaneously next day.

In case of small mixed commands marching over bad roads, the cavalry and artillery may be required to make a much later start, so as not to cut up the soft road; in going through high vegetation or snow, they might be in the lead to break the way.

(b) *Marches in campaign.*

251. Tactical considerations are of controlling importance. The columns are closed up and the impedimenta sent to the rear. The troops march in the order indicated by their relative importance in the impending action.

In exceptional cases it may be practicable on broad highways for cavalry and infantry to march in double columns of fours, artillery and trains in double columns of carriages.

The readiness of troops for deployment is increased by utilizing all the roads leading in the direction of the front. When the ground is favorable, the troops should march across country or along the roads, leaving the latter free for artillery and trains.

The regimental trains are assembled and march at a prescribed distance in rear of the column.

The supply columns are kept one or two days' march in rear of the troops.

252. Communication with other columns should be maintained, cavalry patrols or cyclists being utilized for this purpose. Occasionally a staff officer with orderlies may be sent to march with adjoining columns.

At long halts changes may be made in the arrangement of the

troops to facilitate deployment or participation in the engagement of adjoining forces.

Bugle calls are sounded only when absolutely necessary; when a quiet start is to be made they will be omitted entirely.

On a march through insurgent regions precautions must be taken for the safety of stragglers or of men left behind.

253. When wagons break down or are stalled the load is transferred to other wagons and the road cleared as soon as practicable. Baggage of the headquarters office and telegraph material should be pushed forward, other wagons being unloaded for that purpose if absolutely necessary.

254. When contact with the enemy seems probable the commanding officer joins the advance guard, notifies the second in command, and gives the necessary instructions for the main body, leaving part of his staff behind if needed.

255. When an action begins, the police guard and the rear guard hasten to join the command. Men who have been arrested are taken along into the fight.

256. Whenever necessary, well-informed inhabitants of the country will be impressed to act as guides.

(c) *March into action.*

257. When there is prospect of immediate contact with the enemy, every other consideration gives way to the possibility of bringing the available forces into action promptly. For this reason the troops should be concentrated as much as possible and be well in hand.

In the section of country assigned to each corps the troops assume a formation resembling a line of columns; every road and trail is utilized and additional lines of advance across country are determined by reconnaissance and marked out by staff officers and orderlies, reserving the main roads for artillery.

It will often be necessary to march through forests or jungles; in this case the greatest precautions will be required to maintain communication and prevent columns from going astray.

The regimental trains are left at or sent to a place in rear to await orders depending upon the course of events.

The ammunition columns and the ambulance sections of field hospitals are pushed forward in the direction of positions promising to be suitable. The location of the field hospitals will be fixed by higher authority at the proper time.

(d) *Forced marches.*

258. Forced marches should be resorted to in unavoidable cases only, for they increase the sick list.

When urgency requires that the arrival of troops be hastened, the uninterrupted march of the infantry must be favored as much as possible. They are assigned to the best part of the main roads and their progress must not be impeded by vehicles or mounted men.

In large commands and for long distances increase of pace is seldom of value.

The duration of a forced march can, as a rule, not be prolonged beyond thirty-six hours. In addition to the usual hourly halts several periods of at least three hours are required to enable the troops to eat and sleep.

The maximum for a day's march of infantry and trains may be assumed at 28 to 30 miles; a repetition of this performance on the next day can not be counted upon unless conditions are quite favorable.

259. Cavalry can not only cover short distances at a relatively rapid rate but can also double the length of its usual daily march for several days in case of emergency. A rate of 50 miles in twenty-four hours can be maintained for three or four days. Under favorable conditions a single march of 100 miles can be accomplished in twenty-four to thirty hours.

The manner of making forced marches depends upon the total distance and other circumstances. If the distance be not more than 100 miles the usual hourly halts are made for the first four or five hours; in addition, long halts of two hours are made at the end of the first and second thirds of the march, during which the horses should be unsaddled and permitted to roll and feed or lie down.

If the total distance be about 150 miles, the forced march should commence at a rate of not more than 50 miles per day. For distances greater than 200 miles the marches should be reduced to 40 and even 30 miles per day. As the size of the command increases the difficulties of the problem rapidly become greater and the distances which can daily be covered without injury diminish. The condition of the command upon arrival will depend upon the fitness of horses and men at the start, the distance to be marched, the state of the weather and the roads, but especially upon the good judgment and resourcefulness of the commanding officer.

The results indicated can be accomplished only when the horses are in proper condition at the start. As forced marches are usually

made in emergencies which can not be foreseen, and as time will therefore not be available to harden the horses for the occasion, it should be the constant endeavor of troop commanders to keep the horses, men, and equipment in as good condition as possible for exigencies that may arise.

(e) *Night marches.*

260. In southern latitudes or in very hot weather it may be desirable to make the whole, or at least a large part, of a march at night. In order to attack an enemy at night, or, as is oftener the case, to place the troops in a favorable position for an attack at dawn, night marches will frequently be resorted to. An emergency may require the beginning of a march at any hour of the night; on the other hand, forced marches may extend into or through the night.

Bright moonlight and good roads present favorable conditions for a night march. A waning moon is of advantage in case of marches beginning very early in the morning. When practically the whole night is utilized for marching the hardships of the troops are materially increased. All officers and noncommissioned officers must make special effort to maintain good order in the column.

It is of the utmost importance that the command remain on the right road and that contact between the units composing the column be not lost. As far as practicable, such arrangements should be made in the afternoon before the march as will assist officers in maintaining the proper direction at night. The best guides available should be secured and assigned to different parts of the column. The rate of marching is reduced, the units are closed up, and company commanders are held responsible that touch with the preceding unit is maintained. At turning points in the road men are left behind to show the new direction. Field musicians may be distributed along the column to insure prompt repetition of signals.

In going through a town special caution is necessary to avoid going astray at the many turns in the streets. The advance guard may cause lights to be placed in the windows or lanterns to be hung out along the route. In wagon trains the lanterns may have to be lit on very dark nights; the drivers may be required to walk to keep them awake. A wagon master or noncommissioned officer, with a lantern, should precede the leading wagon by about 25 yards.

On long night marches it will be difficult to keep the men awake; efforts should therefore be made to prevent them from sitting or lying down.

When the march is to be a secret one additional precautions are necessary. The command will in many cases have to leave the roads and progress will be slow as the troops are obliged to feel their way. Absolute silence must prevail in the column; mouthpieces of bugles are removed and tin cups and other articles of equipment must be wrapped or secured so as to prevent rattling. The men will not be permitted to smoke. Villages and farmhouses should be avoided on account of the warning given by dogs.

(f) *Practice marches.*

261. The arrangements for a practice march should conform to the conditions it is intended to simulate. Whether it is simply to accustom the soldier to marching, or to instruct him in field duties, he should be required to carry the full field equipment. The means of transportation for the command, the personal baggage for officers, and the tentage should be kept within the prescribed limits.

Marches of instruction are often made by troops proceeding from their garrisons to autumn maneuvers. Familiarity with difficulties of all kinds in a march in time of peace will enable officers and men to overcome them with greater facility in time of war when their authority is enlarged and many restrictions are of necessity eliminated.

(g) *Crossing of bridges, fords, swamps, and frozen bodies of water.*

262. Before attempting to cross with bodies of troops, careful examination should be made of fords, boggy places, bridges of doubtful character, or of the ice, as the case may be.

Roads leading through swamps or quicksands, or across streams with treacherous bottoms, should have their limits marked by stakes or bushes; or warnings may be placed at the dangerous spots only. At night lanterns should be hung from the stakes and a fire built at the landing or a lantern displayed there.

The crossing of a military bridge must not begin until the engineer officer in charge announces that the bridge is open for use. His instructions as to methods to be pursued must be strictly observed.

Infantry will cross in column of fours or column of twos; cavalry in column of twos; artillery and wagon trains in single file of carriages. Mounted soldiers and men on wagons will dismount, except those on wheel horses; animals are led, with the men on the outside of the column.

Drivers must keep in the middle of the roadway.

Foot troops will march at a quick pace, but without keeping step.

An officer at the entrance stops the column at that point as soon as he observes a check on the bridge.

If a horse should fall into the water he is turned loose.

Every unit, as soon as it has passed the bridge, must clear the exit. This is done by taking up a quicker step and turning the heads of units off in different directions as they leave the bridge. Before cavalry and artillery halt to remount they must leave the main road leading from the bridge entirely free for the use of the troops that follow them.

A mounted officer is stationed at the entrance of the bridge to see that the troops take up the proper formation about 100 yards before going on the bridge, and that they follow each other without loss of time.

263. When practicable, fords should be passed first by infantry, then by artillery and trains, and finally by cavalry.

Shallow fords may be crossed without changing formation except to increase intervals and distances slightly.

When the current is strong and the water deep, the troops should cross on as broad a front as possible, the men marching abreast and holding each other's hands. They should not look at the water, but at the opposite shore.

Fords that are at all difficult will cause much delay to long columns unless the troops can cross at several places. Additional fords should be looked for in spite of denial of their existence by inhabitants. The crossing of many animals and wagons may deepen a ford and render it impassable; new places thus become necessary.

In small commands, or when ample time is available, the men may be required to remove their shoes and lower garments in order to cross streams the bottom of which is of a nature not to injure their feet. In other cases the shoes, without stockings, may be put on again to protect the feet while crossing; the same applies to landings from boats when the beach is covered with sharp stones or shellfish.

The depth of a ford with rapid current should not exceed 4 feet for cavalry, 3 feet for infantry, and 2½ feet for artillery and wagons; in sluggish water this may be increased 6 inches for infantry and cavalry, and 3 inches for artillery.

264. Ice about 3 inches thick will bear small groups of men; 4½ to 7 inches, cavalry and light guns; 8 to 12 inches, heavy guns. The formation of troops would vary according to the thickness and solidity of the ice.

(h) *Crossing of streams on ferries.*

265. When an engineer officer is in charge of the means of transfer, his instructions should be followed; in other cases consideration should be shown to the persons operating the ferry and their methods interfered with as little as possible.

The men enter a pontoon or barge singly at the bow, and gradually move toward the stern; larger vessels may be entered in column of twos. They retain the places assigned to them so that the handling of the boat may not be interfered with. In small boats when the water is rough they will be required to sit down; when there is danger they should remove their equipments.

Horses are led onto the ferry one at a time. When there is room for a single row only, they alternate heads and tails; in two rows they face inward.

Guns, caissons, and wagons are loaded by hand; the teams are sent on the same vessel if practicable.

Unloading also is from the bow, in good order, without crowding. Men sitting down should not rise before their turn comes.

When rafts are used, special precautions are necessary. The center of the raft is first occupied and then the load uniformly distributed. Unloading is carried out in inverse order, the center of the load being the last to leave.

The crossing of beef cattle on boats or rafts is dangerous on account of uncontrollable crowding. It will in most cases be better to swim them.

ARTICLE VI.

COMBAT.

GENERAL CONSIDERATIONS.

266. Combat will be either offensive or defensive. Decisive results can usually be obtained only by the offensive. The defensive should as a rule only be adopted temporarily or locally, with a view to eventual assumption of the offensive.

267. Engagements are usually preceded by operations the object of which is to locate the enemy without committing the main body to action. These preliminaries begin with the action of independent cavalry and culminate in the contact of the advance guards.

268. An engagement generally presents three distinct phases, namely, the *preparatory stage*, the *decisive action*, and the *completion*. The corresponding distribution of troops should be such as to carry out the following general plan:

(a) To engage the enemy, wherever he may appear, with the troops necessary to stop him, to hold him to his positions, to inflict loss and cause him to call up reserves, at the same time leaving him in doubt as to the point where the decisive blow is to fall.

(b) To withhold a part of the available forces for a powerful effort at the decisive point.

(c) To maintain a reserve, screened from the enemy's view and protected from loss, to take part in a vigorous pursuit in case of success, or to avert complete disaster in case of failure.

269. These phases will not always be fully developed. The preparatory stage may be brief and be followed at once by the decisive attack. Sometimes the enemy may be surprised by a flank attack, or inferior numbers may be overwhelmed before support can reach them. In general, however, when large forces face each other ready for battle, the engagement will take the course indicated.

FIRE.

270. The efficacy of fire depends upon its accuracy, its direction with reference to the objective, and its volume. Accuracy and effi-

ciency of fire require knowledge of the effect of ground and sufficient control to direct the fire. Volume of fire depends upon the number of rifles or pieces in action and the rapidity with which they are fired. However, increase of rapidity beyond certain limits impairs the accuracy and therefore diminishes the efficacy of fire. Concentration of superior forces at decisive points within effective range is therefore necessary to secure preponderance of fire.

As the conditions are never the same, no fixed rules for the attainment of the superiority of fire can be laid down beyond the necessity of securing the greatest volume of fire possible. This is of great importance, for it is certain that an advance against even an inferior force has but small prospect of success without the preparation and assistance of superior fire.

271. The terms applied to ranges of small arms and field artillery may be stated as follows:

	Rifle.	Light artillery.	Heavy artillery.
Distant	Yards. Over 1,800	Yards. Over 4,500	Yards. Over 6,000
Serious	1,800 to 1,200	4,500 to 3,500	6,000 to 4,000
Effective	1,200 to 600	3,500 to 2,000	4,000 to 2,500
Decisive	Under 600	Under 2,000	Under 2,500

This classification assumes conditions favorable to the efficacy of fire, such as clear atmosphere and an exposed target. In most cases important modifications would be caused by the amount of shelter afforded by the terrain.

ADVANTAGES OF THE DEFENSIVE.

272. The defensive has the choice of position. This will be selected so as to afford shelter to the defenders and compel the assailants to pass over open ground where they may be subjected to a heavy fire. The strength of the position may be increased by field fortification. Some of the trenches and their occupants may be concealed, thus forming an ambuscade and subjecting the enemy to a fire, the origin of which it is difficult to locate. Furthermore, the trenches may be made untenable for the assailant by arranging for enfilading and cross fire from other trenches farther to the rear. Ranges in the foreground will usually be measured and marked, and an ample supply of ammunition, water, and food placed in the trenches. The defender's troops are and

remain under better control. Their fire can be concentrated on important objectives. The aim of the defenders should be much better than that of the assailants who can not as a rule fire their rifles from a rest, and who, moreover, are unsteady from the exertions of the advance. The losses of the defenders, who are behind cover should be small compared with the casualties of their opponents who must pass over open ground. And, finally, the morale of the defenders is subjected to less strain, for they can make effective use of their weapons for a long time before the enemy's superior forces can come near enough to imperil withdrawal from the position.

ADVANTAGES OF THE OFFENSIVE.

273. The commander of the force on the offensive has the great advantage of the initiative; that is, he makes the lead to which the defender must follow suit. He has a specific object, whereas the defender has only the general object of repelling the adversary. He can make feigned attacks against various parts of the enemy's position, or merely occupy him all along the line, while massing superior forces against a single point. The defender, on the other hand, must meet the decisive attack wherever it may fall. The assailants have the confidence of their numerical and moral superiority. When the die is cast and the attack is on they no longer meditate upon the consequences; they look forward, not backward. The defenders, shaken by superiority of fire and seeing the steady advance of overwhelming numbers, realize the effect of impending contact and of resulting enfilade or reverse fire and seldom wait for the final rush. The defender's whole line generally gives way as soon as it is turned or penetrated.

SUMMARY.

274. Increased accuracy and range of small arms have greatly diminished the chances of success in a frontal attack; the comparative invisibility of the firer, due to the neutral color of his uniform and the use of smokeless powder, also adds materially to the power of the defensive. Without superiority of fire we may assume the frontal attack as impracticable. If we consider two lines consisting of infantry only, this superiority can not be secured unless the number of rifles put into action by the assailants is much greater than the number opposing them; or, unless the assailants are decidedly better shots than the defenders; or, when the defenders are unskillful in the use of cover as against assailants who make perfect use of the ground; or, when the defenders are surprised; or, in case the de-

fenders have been cowed by previous defeat and the assailants have an unquestionable moral ascendancy over them.

Frontal attacks are not impossible, but in order to be successful the assailant must gain superiority of fire and be willing to pay the price of victory.

275. In order to avoid heavy loss it will be necessary to resort to thin lines of skirmishers. On the other hand, a sufficiently heavy fire can only be secured by placing as many rifles as possible in the firing line.

At parts of the front where serious attack is not intended, thin lines of skirmishers well supplied with ammunition should be employed, but in the decisive attack heavy lines and large expenditure of ammunition are necessary.

276. Nearly all of the factors which make frontal attack difficult inure to the advantage of the offensive in enveloping and flanking attacks. For example, the longer the range of weapons the greater the power of convergence of fire on salients of the enemy's line. And the neutral color of uniform which hides the firer on the defensive, at the same time favors the offensive in concealing turning movements.

277. While the advance in small arms has benefited the defensive, improvement of field artillery has increased the advantages of the offensive, whether in frontal or flank attack. The great range of field artillery enables the assailant to accumulate a crushing superiority at the desired point without being discovered by the defender, to open an accurate and overwhelming fire as a surprise, and thus to acquire an ascendancy which becomes more pronounced as the power of the arm increases.

278. It is impossible to shoot an enemy out of a position. In order to avoid serious losses the defender only has to lie down behind cover. But a resolute and simultaneous advance on both the front and a flank of a position, made after thorough preparation by, and with the effective accompaniment of, artillery and infantry fire, will in the future, as it has been in the past, generally be successful.

279. The degree of dispersion necessary to avoid heavy loss makes control of the skirmish line difficult; hence the great importance of individual intelligence and courage, and of skill in shooting and in taking cover. In the final assault great moral stamina is indispensable.

THE ATTACK OF A POSITION.

280. *The plan of attack*.—The first duty of the commander is to obtain reliable information as to the numbers and position of the

enemy. He will then endeavor to ascertain the weak points of the enemy's position and will carefully note the places from which a concentrated fire may be brought to bear upon them. Partial engagements will often be necessary in order to gain possession of intermediate points from which operations against the enemy's main position may be initiated.

281. The key of a position is a point the capture of which menaces a large part of the enemy's position and renders it untenable.

The most vulnerable part of a position is generally one of the flanks, or if the enemy's line is too extended, some weak point of the front.

282. The commander decides upon his general plan of battle and communicates it to the troops in field orders. Sometimes the most suitable point for the decisive blow is not ascertained until after much fighting in the preparatory stage. With a large reserve in a central position under cover, advantage can be taken of the developments of the action.

283. In his orders for attack the commander in chief will state the position and probable designs of the enemy, and his own intentions, as far as developed. The commanders of the large units will be assigned to sections in which to operate, and objectives will be indicated to them. The time when operations are to begin, and the positions of field hospitals, the trains, and of the commander in chief, will be stated, as also the strength and position of the reserve.

The special instructions sent to each commander should indicate clearly what is expected of him and whether assistance in emergencies will be available or not.

284. The general plan should be kept secret until the time for action is near, but should then be disseminated rapidly throughout the command.

285. *The preparatory stage.*—After the advance guard has come upon that of the enemy, or upon advanced detachments covering his front, his main position still remains to be determined. The enemy's precautions may be such that serious attacks, capturing detached positions and salients, and pushing back his advanced troops, may be necessary before the main line of his defense stands revealed.

286. The attacking troops will intrench themselves, if practicable, after each gain of ground to the front, and finally will face the enemy in his principal position at sufficiently close range and in ample force to hold him there.

The combat of the preparatory stage may thus last for hours; in great battles it may even extend through several days, with continually increasing demands upon the troops.

287. The commanders of the large units to whom sections of the front and intermediate objectives have been assigned should be allowed to retain freedom of action and initiative in order to be able to take advantage of opportunities to make progress toward the enemy, which should be their constant endeavor. As a rule they must not count on receiving assistance.

288. The commander in chief may send in reinforcements at points of the line considered important, or he may withdraw local reserves and there prescribe a defensive attitude, simply holding on to captured ground.

289. As the opposing infantry forces come into contact the cavalry transfers its activity to the flanks. It continues to observe the enemy, maintains communication, keeps off the enemy's cavalry, and menaces his flanks, ready to take rapid advantage of opportunities for action. A large portion of the cavalry will be held in reserve in a central position from which it can rapidly reinforce threatened parts of the line.

290. The artillery will enter into action as soon as possible; its principal efforts will be directed toward obtaining the mastery over the enemy's artillery.

291. The infantry will work its way from one point of support to another toward the objectives assigned. It will be assisted by the artillery, which should prepare these partial attacks and cooperate in their execution.

The duties of the infantry are to inflict loss on the enemy, force him to send in his reserves, to hold him to his positions, and to repel counter attacks.

292. *The decisive action.*—During the fighting of the preparatory stage the commander in chief, with the reserve, will have approached the point where the decisive action is to take place. The selection of this point will generally be determined by considering the weak points developed during the preparatory stage, the places where large forces, especially of artillery, can be assembled under cover, and the position of the large reserves. In exceptional cases the key point of the enemy's position may be detected by reconnaissance alone. If a flank is to be attacked, the nearer one to the enemy's line of retreat should be preferred, other things being equal.

293. The body of troops which is to deliver the decisive stroke should be in full vigor at the time of conflict and should come upon

the enemy as a surprise. Hence its approach should be so conducted or timed as to escape observation until it reaches the cover nearest to the enemy; from this it will, at the opportune moment, burst forth straight to the front in the decisive attack.

The selection of this moment is the supreme duty of the commander in chief. If the attack is made too soon it may fail through lack of preparation; if delayed too long the enemy's reserves may have reinforced the position and the tide of defeat have set in.

294. In any case the decisive attack must be prepared by a powerful fire concentrated on the objective by all the artillery and infantry in range, the attacks at other points being renewed with increased intensity at the same time.

This preparation by fire consists in the infliction of such losses that the defender's morale will be seriously impaired and the efficacy of his fire materially depreciated. A combination of the action of infantry and of artillery is necessary when the enemy is well intrenched; advancing infantry to force him to open fire, consequently to expose his position; artillery and infantry fire to inflict loss during such advance.

295. Under the protection of this fire the troops engaged in the attack begin their final advance, with the firm determination of charging home. As they approach the enemy's position all the defenders will show themselves for the purpose of firing. This is the time for the artillery, with ranges accurately determined, to redouble its activity, firing over its own infantry, if necessary.

296. One reinforcement after another is now sent forward at the decisive point, not only replacing losses, but each by its arrival pushing the firing line nearer to the enemy's position. As the attack progresses part of the artillery will advance to new positions and open fire at close range on the position, or on the enemy's reserves coming up. The maximum intensity of fire must be employed when the attacking troops are temporarily stopped by obstacles within effective range of the defenders, whose fire must be kept down at all hazards.

297. When the infantry has advanced near enough to the position to be able to reach it in one more dash it opens a rapid fire, and then, with bayonets fixed, rushes the position. The next line in rear joins in the charge, adding to its impetus and furnishing the numbers to decide a possible hand-to-hand conflict. A third line, retaining its formation, is hurried up to occupy the position and repel a counter charge. Artillery should advance with the utmost dispatch as soon as the position is carried, so as to be available to

fire on the enemy's artillery covering the retreat, or to assist in repelling an offensive return.

298. While the decisive action is in progress the troops at other parts of the general line make vigorous attacks, excepting such as have orders to act as a containing force. Thus, if the principal attack should fail, success may still be achieved at other points.

299. When the attack is made so as to envelop one of the enemy's flanks, a portion of the cavalry should protect the outer flank of the infantry, drive off the enemy's cavalry, and operate against the flank and rear of the position. The cavalry reserve is held in rear of the general line, but near enough to the flank to reinforce the cavalry engaged or to be launched promptly in the pursuit.

300. For a sustained effort in the decisive action the troops must be so arranged that reserve after reserve can be pushed to the front. As long as there is a chance of success the commander in chief should not hesitate to utilize his last available man for a final effort.

301. As soon as a position has been carried steps should be taken to hold it against possible counter attacks. The troops disorganized by the assault should be reformed without delay. Strong points will be occupied, all available cover being utilized and hastily improved; shelter trenches will be constructed, if practicable, and a portion of the forces will establish itself in a temporary defensive attitude as quickly and strongly as possible. The course of events will soon indicate whether the enemy has definitely abandoned the position or not. As long as there is danger of an offensive return, strengthening of the position must continue.

302. *The pursuit.*—No victory is complete without a resolute effort to reap its fruits to the fullest extent possible. The retreat of the enemy's forces in disorder will probably furnish excellent targets for infantry and artillery fire.

303. While the enemy is being thus pursued by fire, the cavalry and horse artillery hasten to overtake him and endeavor to convert the defeat into a rout by resolute charges and by destructive fire at short range. All available troops should take up the pursuit. The portion of the reserve not engaged and other fresh troops already formed are to be preferred; but previous losses and exertions should not be accepted as an excuse for neglecting the utmost efforts to remain in contact with the enemy, to keep him going, and to give him no time to recover from disorder, to take up a fresh position, or to form a rear guard.

304. The cavalry should act with great boldness. If the nature

of the country or other reasons make the charge impracticable, they should endeavor to intercept the retreat, or at least to open fire with rifles and guns at effective range from positions on his flank. This will necessitate deployment by the enemy, cause delay, and thus gain time for the pursuing infantry and artillery to get into action. Cavalry leaders will act on their own initiative and endeavor by all means in their power to make the most of the victory. In any case, touch with the enemy must not be lost.

305. Repulse. In case the assailants fail to reach their goal, whether on account of obstacles or the defender's fire, or a combination of the two, immediate withdrawal to the nearest cover will generally be necessary. This should be effected by alternate sections, the withdrawal of a part being covered by the fire of the remainder. On account of the inevitable disorder, the losses in recrossing the fire-swept zone will generally be greater than in the assault. The position of the assailants, close to the enemy's position, may be such that it will be preferable to wait for the cover of darkness, provided the enemy does not make a counter attack. The arrival of reinforcements or the course of events in other parts of the field may decide the commander to repeat the assault; the ground then still held may serve as the starting point for renewed efforts. If the enemy assumes the offensive and begins pursuit, infantry units still intact and a portion of the artillery should occupy defensive positions behind which the defeated troops may rally and reorganize. The enemy will be held in check by a vigorous fire sweeping his lines of advance. At critical moments the cavalry will delay the enemy by charges, and the artillery will continue its fire up to the last moment, regardless of the risk of loss of guns. The paramount object is to gain time for the infantry to recover its organization.

THE DEFENSE OF A POSITION.

GENERAL PRINCIPLES.

306. Whatever the reason for adopting a defensive attitude, it certainly involves the disadvantage of loss of initiative. A partial compensation may be found in an efficient system of observation and of rapid transmission of intelligence, ample reserves free to move to the threatened point, and strong rallying positions in rear of the line of defense.

307. Cooperation of the three arms is as important to the defense as it is to the attack, the object being to secure superiority of fire prior to the counter attack or in the offensive return.^a

308. The manner of occupying a position will vary with the nature of the ground, and with the strength and character of troops available. It is therefore impracticable to apply fixed rules in the occupation of a position; the only reliable guides are the good judgment of the commanding officer, a thorough knowledge of the effect of fire and of the value of ground, and appreciation of the results obtainable through timely assumption of the offensive.

309. The commander should keep in view the defense of his line of retreat and make preparations facilitating local counter attacks, the decisive counter attack, or the offensive return, when necessary.

310. The troops for defense will generally be divided into two principal parts: One for occupation of the intrenchments, including local reserves; the other, the general reserve for reinforcing parts of the line and for the delivery of the decisive counter attack or of the offensive return.

THE POSITION.

311. Assuming that the general location of the troops satisfies strategical demands and complies with orders from the highest authority, the position selected should fulfill as many of the following conditions as practicable.

- (a) Good view to the front, the flanks, and in the position itself.
- (b) Clear field of fire to the front and flanks, from commanding ground if practicable.
- (c) Extent suited to the size of the command.
- (d) Location such as to force the enemy to make an attack or abandon his advance.
- (e) Ground in front such as will impede progress of assailants, but without cover against fire, and unfavorable for intrenchment.
- (f) Concealment from view of the enemy and shelter from his fire, for all of the defender's forces.

^a A counter attack is directed against the enemy's attack; that is, it meets him before, or at the moment of, arrival at the defended position. The term is also applied to an attack made after a prior defensive attitude and directed against troops not previously engaged, for example, in turning the flank of an attacking force. This is called the decisive counter attack, although, properly speaking, it is the assumption of the offensive.

The offensive return consists in the assumption of the offensive by the defender with the purpose of recovering ground just captured by the enemy, and of returning to the original position.

(g) Flanks resting on ground either naturally strong or capable of being made so artificially.

(h) Sufficient depth of position and good communications laterally and to the rear.

(i) Favorable conditions of ground for assuming the offensive in the decisive counter attack.

(k) Water of good quality in sufficient quantity for the needs of the troops.

(l) Line of retreat running straight to the rear, behind the center of the position. In case a flank position, parallel to the enemy's line of advance is assumed, the flank nearest to the enemy should rest on an impassable obstacle and the ground should permit of a line of retreat perpendicular to the front for some distance in rear of the position.

THE PLAN OF DEFENSE.

312. Examination of the position.—Before drawing up the plan of defense it will be necessary to make a careful examination of the ground in the vicinity with reference to the following details:

(a) The best general line to be occupied by the infantry.

(b) The best positions for artillery.

(c) The probable positions of the enemy's artillery; ground affording cover for the development of the attack; most favorable lines of advance for the enemy.

(d) The weak flank of the position, and the most favorable ground for counter attack.

(e) Ground for reserves, for the general reserve, for the mounted troops, and for rallying positions in case of retreat.

313. Commanding ground from which the enemy can look into, or even enfilade a part of the position, is highly dangerous for the defense.

The most favorable lines for the advance of the enemy are on ground favoring cooperation of the three arms, especially the support of the advancing infantry by artillery and long-range infantry fire.

314. The position of all reserves, and, if possible, their lines of advance, should be screened from view and fire, so that their action, which should be directed so as to menace the enemy's line of retreat, may come as a surprise.

315. Salients in a position, if exposed to concentrated artillery fire, are a source of weakness. Advanced posts which are occupied to prevent ground dangerous for the defense from falling into the

hands of the enemy should be strongly fortified and flanked by fire of infantry and artillery. If too far to the front to be swept by effective infantry fire from the rear, they had better not be included in the line of defense.

316. In order to conceal the main position as long as possible, advanced lines may be established in front of or beyond the flanks of the main trenches. They serve to prevent reconnaissance, force the enemy to make a premature and perhaps a false deployment, and may cause him to come under the fire of the main position unexpectedly. The retreat of this screen must not mask the fire of the principal position.

317. *Strengthening the position.*—The amount of work done on trenches will depend upon the time and the implements available, and on the nature of the ground. The principal trenches will be traced by engineer officers in conformity with the general plan of defense. The work will be done by troops of the line, with the assistance, or under the supervision, of the engineers, when practicable.

Trenches should not be constructed so as to bring the guns or the troops against the sky line.

318. Trenches at the military crest ^a generally have a good field of fire and command the ground in front; reinforcement, or withdrawal therefrom, is comparatively easy. They are difficult to conceal, and the fire is likely to be plunging.

Trenches near the foot of a slope are easily concealed and they have a grazing fire; on the other hand, their field of fire may be limited, and withdrawal or reinforcement alike leads to disastrous exposure unless special protection is provided.

When natural cover is not sufficient, supports and also reserves should be protected by intrenchments.

319. All trenches should be concealed as much as possible, and, when time is available, covered approaches from the rear should be provided. Dummy intrenchments may be constructed to deceive the enemy.

320. Communications leading to the rallying position should be numerous and excellent. Engineers may be employed in repairing existing roads, opening new ones, constructing small bridges, etc.

^a The *military crest* is that part of a hill from which all or at least the greater part of the downward slope within range can be seen and subjected to direct fire. It generally differs from the actual or topographical crest, which is at the highest points or watershed.

321. At the same time clearing of the field of fire and construction of obstacles should be undertaken. Entanglements of barbed wire are of special value in delaying the enemy under fire.

322. The arrangements for transmission of information and orders should be as nearly perfect as possible. All the usual means of observation and communication should be utilized in order that the intentions of the enemy may be quickly ascertained and promptly met.

323. Ranges should be measured and marked and the troops made familiar with the distances.

324. *Distribution of troops.*—As soon as practicable after examination of the position the commanding officer decides upon the plan of defense and communicates so much of it as may be necessary to the troops in orders. These will be drawn up in the usual form (see Article II) and should show the sections into which the position is divided, the troops, with the name of the commander, assigned to each section, the time when they are to occupy their positions, and the location of the commander's headquarters.

325. The order of battle will generally be determined by circumstances. Uniformity of practice in distributing troops should be avoided, for the enemy would soon take advantage of the fact.

326. A considerable part of the cavalry should be posted near the flanks where they can oppose the enemy's reconnaissance, keep a good lookout, and give early notice of turning or enveloping movements. The larger part of the cavalry will be held under cover in a central position from which it can be sent rapidly to operate against a flank of the enemy's advance, to delay a turning movement, to reenforce weak parts of the line with dismounted fire, or to cooperate with the general reserve in the counter attack.

327. The artillery of the defense should be posted so as to command the enemy's lines of approach and the probable positions of his artillery. If the defender's artillery would cope with that of the assailant, a number of batteries must be held in reserve, ready to be rushed to positions facilitating a converging fire against the enemy's principal artillery attack, wherever it may be developed.

The defender will be at a disadvantage unless, with the disposable batteries, he can bring his strength up to that of the artillery concentration against him. Except when conditions are favorable for the defender's artillery, it will if practicable be better to forego the duel and avoid disclosing the location of most of the batteries until they can be effectively employed against a serious infantry attack; however, good opportunities for flanking or oblique fire should not

be neglected, and the idea of bringing a cross fire to bear on the lines of hostile advance must not be abandoned.

As far as practicable the emplacements for the batteries should not interfere with the dispositions of the infantry.

328. The defender's infantry should not be exposed to view or fire until it is necessary to meet the enemy's advance; it will ordinarily be distributed as follows:

To hold the position:

Firing line.

Supports.

Local reserves.

For the decisive counter attack:

The general reserve.

Both supports and reserves should be as near to the firing line as practicable, but under cover, and should occupy their positions before the beginning of the battle. Dead spaces should be swept by the fire of special detachments. A part of the local reserves should be placed under cover in echelon behind the flanks so as to be ready to meet flanking movements on the part of the enemy.

329. Some parts of the line are more easily defended than others and will therefore not require as many troops. Ground with much cover should be specially watched, even if it be difficult for the enemy's operations.

330. The general reserve will usually be posted in rear of the center, but it may be placed in rear of the flank where counter attack is contemplated. Its position should be concealed as long as possible.

A considerable portion of the cavalry and horse artillery should be assigned to the general reserve in order to keep off hostile reconnaissance, to maintain communication with all parts of the field, to protect the flanks, and to have the means of rapid action at hand.

ACTION IN DEFENSE.

331. *The preparatory stage.*—If it has been decided to engage the enemy's artillery, the reserve batteries are brought up as soon as the enemy indicates the place of his artillery concentration. A converging fire should be opened on the enemy's batteries as soon as they appear within effective range. If the enemy attempt to advance his artillery to closer range, the defender will pay special attention to the batteries in motion, the fire of the echelon remaining in position being at the same time kept down. If the duel is to be declined, the batteries of the defense will not open fire unless

specially favorable targets, for example, artillery in motion within effective range, are presented. In any case, designated batteries fire upon the enemy's infantry columns when they appear, in order to force early deployment.

332. As soon as the assailant's artillery has gained supremacy he will probably advance his infantry in order to cause the defenders to betray the location of their trenches by lining the parapets. They would then be subjected to the fire of both infantry and artillery without being able to reply to the latter. At this stage, therefore, the defenders should disclose only such trenches and make use of such fire of artillery, and of infantry in thin lines, as may be necessary to keep the enemy at a distance.

333. Should the assailants succeed in gaining a position threatening the line of defense, or penetrate that line, a counter-attack becomes imperative. The sooner it is made the better, so that the enemy may not have time to strengthen the ground he has gained.

Such local counter attacks are the special duty of the local reserves; they are made upon the initiative of officers in command of sections of the defense. The pursuit should not be carried far. As soon as the enemy has been driven off the troops should re-form and return to their positions.

Should the enemy attempt an assault he will be met with rapid fire and a countercharge with fixed bayonets. Every available man should be brought up, and the enemy be struck in flank if possible.

334. *The decisive action.*—For the defense the decisive action may consist simply in a definite repulse of the enemy's principal attack, followed by local counter attacks, or in an offensive return by the general reserve to recover lost ground, or in the assumption of a vigorous offensive by the general reserve against the enemy's flank while he is engaged in the frontal attack. The latter method is most effective if the enemy can be surprised and if artillery can come into action against his flank at decisive range. The infantry should have strong firing lines from the start; the cavalry and horse artillery should be on the outer flank threatening the enemy's communications and ready to take up the pursuit.

335. *The completion.*—If the defenders have been unsuccessful and retreat is necessary, some artillery and intact units of infantry should occupy the rallying position. Cavalry and horse artillery will endeavor to delay the enemy's advance, a rear guard will be formed as soon as possible, and the remainder of the troops will endeavor to gain the cover of the rallying position and there reorganize. Strong flank guards will occupy good defensive positions

protecting the line of retreat against inroads of the enemy's mounted troops.

336. When the attack has failed and the enemy has abandoned the offensive, the defender should conduct a vigorous pursuit, as indicated in paragraphs 304 to 306, to the extent permitted by the number, kind, and condition of the troops, the state of transportation, supplies, and equipment, and instructions from higher authority based upon the general strategical situation.

NIGHT OPERATIONS.

GENERAL PRINCIPLES.

337. Night operations at a distance from the enemy are generally forced marches or marches made to avoid the heat of the day. In the vicinity of the enemy night marches may be made to seize a position before the enemy can reach it; to concentrate troops for a decisive attack; to avoid an engagement, or to effect a retreat.

338. In all night operations the watches of all officers will be set by that of the commanding officer of the troops making the movement.

THE DIFFERENT ARMS AT NIGHT.

339. Cavalry should be placed in readiness in positions from which it can promptly take up the pursuit at daybreak and operate against the enemy's rear. If cavalry is to form part of a column at night it should march in rear of the infantry reserve.

340. Except in demonstrations or false attacks made to create alarm or to deceive the enemy as to the real point of attack the infantry of the assailant will withhold its fire as long as possible.

341. The defenders should open fire by volleys before assuming the offensive with the bayonet; the opportune moment is indicated by hesitation or confusion on the part of the assailants.

342. Guns should be aimed during daylight so as to sweep roads and open ground. The fire of artillery at night is ordinarily limited to the defensive, but it will be needed offensively as soon as daylight comes. It should therefore be ready to enter into action as soon as possible; on the march at night its place would ordinarily be in rear of the cavalry, with special infantry escort.

343. Engineers will be needed at the head of the column to remove obstacles on the march and in the defenses. When a position is to be fortified immediately after capture, engineers would again be necessary. In this case they would march with the reserves.

PRELIMINARY ARRANGEMENTS.

344. The commanding officer will cause such reconnaissances to be made, both by night and by day, as may be necessary. When entrenched positions, their obstacles and approaches are to be reconnoitered, engineer officers should accompany the detachments.

345. In hostile country guides employed will be handled with caution to prevent their escape in the darkness. Compass bearings of the general direction of the objective will be taken to serve as a check on the line of march.

346. When necessary to distinguish them from the enemy, troops will be provided with a conspicuous badge and a watchword will be made known to all members of the command.

347. The necessary materials for surmounting or destroying obstacles will be carried by special details.

348. A *position of deployment* where the troops are to form for attack will be selected beforehand, unless they are already in line of battle. The position should be easy to recognize and be at a sufficient distance from the enemy to prevent discovery. Compass bearings of objectives after deployment should be known.

349. Smoking, talking, laughing, and other noises in ranks will be prohibited; dogs, neighing horses and those of white or gray color will be left behind.

350. Orders for a night attack will be issued and the preliminary arrangements completed only a short time before the movement. In the meanwhile possible avenues of communication with the enemy must be carefully watched. Detailed instructions for the different parts of the command will be issued after the troops have assembled at the rendezvous.

351. The troops destined for night attack may be assembled at a rendezvous position and then be marched as one column to the position of deployment. They may then be divided into several separate columns of attack according to the tactical necessities of the situation. A powerful and sustained effort at a single point carefully selected beforehand is in nearly every case to be preferred to attacks at several places. This, however, does not preclude false attacks which should almost invariably be made in order to deceive the enemy.

CONDUCT OF TROOPS IN NIGHT ATTACK.

352. *The offensive.*—The attacking troops will advance as secretly and silently as possible upon the enemy's position. As soon as the

first line becomes engaged the supports will be pushed in. All officers must exert themselves to the utmost to keep their troops moving to the front and to hasten the collision.

If practicable, the roads and other lines of advance probably commanded by the defenders' artillery will be avoided.

353. The defensive.—Nothing but the most general rules for the defensive can be prescribed. The outposts must exercise the utmost vigilance, and the dispositions must be such that the line of resistance can be stubbornly held and quickly reenforced. Whenever practicable the front and flanks of the position will be covered with obstacles. The successive echelons of the defense should be placed in positions favorable for the assumption of the offensive, and arrangements should be made to enable them to form their ranks with the least possible delay.

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ARTICLE VII.

AMMUNITION SUPPLY.

FOR INFANTRY.

354. It should be the constant endeavor of all commanders to keep the belts of their men filled with ammunition; consequently, not only must advantage be taken of every opportunity to replenish the supply, but prospective expenditure must be anticipated by issuing additional ammunition in advance.

Ammunition wagons, at the rate of one for each battalion, should march immediately in rear of these units or be assembled at the rear of the regiment under charge of an acting ordnance officer or a reliable sergeant.

When a serious engagement is expected, the battalion ammunition wagons will be emptied and the men required to place the additional cartridges in their pockets and haversacks; or, when the ammunition is furnished in emergency belts already filled, each man slings one or more over his shoulder.

The commanding general may order a sufficient number of ammunition wagons from the ammunition column to join the troops in order that each man may go into action with 200 rounds on his person.

355. When desirable, the intrenching tools on the wagons are issued at the same time. The wagons then go to the rear and are replaced, as soon as practicable, by identical wagons from the infantry sections of the ammunition columns, brought up to the vicinity of the troops. These new wagons remain with the battalion reserves until they come under effective fire of the enemy, after which they are to seek cover, as near to the troops as possible. Position of the wagons to be marked with a red flag in the daytime, and a red lantern at night, but out of sight of the enemy and chosen so that movement in advance or retreat may be taken up readily; movement under fire should be with intervals of 20 paces.

In emptying the wagons ammunition is first taken out of the rear chests, the limber being left intact to the last. Each wagon must be completely emptied before another one is opened.

356. When the progress of the attack, after a large expenditure of ammunition, carries troops into difficult ground, and a demand for more ammunition is probable, the lead mules may be unhooked and by slinging two boxes of ammunition to the saddles they carry, may be converted temporarily into pack animals; or, the limbers may in certain cases be used as carts in response to an urgent call in difficult country. The wheelers with the limbers should return without delay to the now partially empty wagons, the leaders continuing as pack animals as long as an energetic pursuit over difficult ground renders such temporary action necessary.

If there is a pack train with the division, it should be loaded with ammunition before an engagement and then follow the troops, ready to be hurried to ground impracticable for wagons or wherever ammunition may be urgently needed.

357. When the attacking troops approach to within medium range of the enemy's firing line, the above methods of replenishing the ammunition will become exceedingly precarious, unless favored by inequalities of the ground. The only way then is to send it forward in bundles of 200 or 300 cartridges, or in emergency belts, carried by the reinforcements as they work their way up to the firing line. Small groups of men with belts of ammunition, under non-commissioned officers, may be pushed forward to special points in the firing line. *In no case will men be sent back for ammunition.*

358. Every lull in the fight must be utilized to renew the supply and to equalize the same in the company. The contents of the belts of the dead and wounded will be distributed as soon as practicable; in some cases the latter must, however, not be deprived of the means of self-defense.

The dawn of the day after an engagement terminating at nightfall should find the belts of the men, the extra ammunition on the men, the battalion ammunition wagons, and the ammunition columns completely replenished.

On the defensive, especially in prepared positions, extra boxes of ammunition are laid down on the firing line.

Empty wagons of the ammunition column are sent back during or after the battle to be refilled from the ordnance train.

The ordnance trains are filled from magazines at the railroad terminus. The magazines are supplied by rail or water from the arsenals at home.

Synoptical view of infantry ammunition supply.

Carried.	Rounds.	Place on the march.	Place in an engagement.	Replaced.
In the men's belts.	90	.....		From battalion ammunition wagons.
In battalion wagons.	60	With the light train.	Near the troops.	By wagons of troops not engaged, or from infantry sections of ammunition column.
In infantry sections of ammunition column.	120	In rear of main body.	First half approaches battlefield.	First half replaced by second half; the latter from ordnance train.

Total, 270 per man, full strength.

359. Cavalry should carry the same amount of ammunition as infantry. When an engagement is imminent or when the ammunition wagons are to be left behind, additional cartridges are carried on the person, on the saddle, or in the saddlebags.

When conditions are unfavorable for wheel transportation the rifle ammunition for cavalry divisions should be carried by pack trains.

If their ammunition should be exhausted during an engagement, cavalry will resort to the nearest infantry ammunition wagons or sections of the ammunition column.

A reserve of revolver cartridges is carried in the ammunition wagons of the cavalry and also of the infantry.

The expenditure of explosives by cavalry and engineers will be replaced from the wagons with the corps bridge train.

FOR ARTILLERY.

360. When the fighting battery goes into action each piece is supplied from its own caisson. With the fighting battery are two additional caissons from which the other caissons are replenished. The ammunition of the caisson limbers is also available for this purpose. This replenishment is ordinarily effected by the cannoners during lulls in the action.

The ammunition in the gun limbers should be kept intact as a last reserve, and, whenever used, should be replaced as soon as practicable.

Caissons from the reserve replace empty caissons of the fighting battery. Empty caissons are either refilled from the limbers of the reserve caissons or else sent to the ammunition column to be refilled. If necessary, caissons from the ammunition column may be sent direct to the fighting battery.

Horse batteries in a cavalry action, when necessary, draw ammunition from the limbers; the ammunition so used should be replaced as soon as practicable.

Synoptical view of artillery ammunition supply in action.

Carried.	Rounds per gun.	Position on the march.	Position during action.	Replaced.
In the limber	36	.....	Under cover to a flank and rear, or in rear of pieces.	From reserve caissons, or from caissons of the fighting battery.
In the caissons.	318	All habitually with the battery. Subdivision made after arrival at rendezvous position.	6 caissons in the fighting battery; the other 6 not more than half a mile in rear; chief of caissons responsible for timely arrival of replacing caissons.	Reserve caissons replace caissons of the fighting battery. Empty caissons are refilled from limbers of reserve caissons, or from ammunition column. In rare cases caissons go direct from ammunition column to the fighting battery.
In the artillery ammunition column.	106	With the trains; approaching the rear of the column of troops when action is probable.	Part approaches vicinity of battlefield; the rest held back under orders of the commander of troops.	From ordnance trains, which should be started toward the front from magazines when action is contemplated.
Total	460			

ARTICLE VIII.

SUBSISTENCE.

GENERAL PRINCIPLES.

361. The subsistence of an army in the field, especially when in motion, is a difficult problem, the complete solution of which requires favorable conditions, such as success in the military operations, a suitable system of supply, ample communications with uninterrupted use of the same, and intelligent and energetic action on the part of the responsible officers.

362. During active operations troops should not expect to receive complete rations at all times. There will be losses and suffering in battle, severe exertions and great fatigue on marches, and irregularity and reduction in rations. Not all of the swiftly changing conditions can be foreseen; consequently, occasional failure in the most careful arrangements is unavoidable.

363. Troops may be subsisted on the supplies carried with the command, or through direct requisitions and foraging, or from depots. The method of subsistence will be ordered by the commanding general, according to circumstances.

364. In campaign it is the duty of commanding officers and of the proper staff officers to provide regular and ample supplies of food for the men and animals of the command. In cases of emergency the commanding officer will resort to independent measures promising quick results.

365. The arrangements for subsistence may be considered good when military operations are not hampered by lack of food, and when the amount of transportation is kept down to a minimum.

The constant endeavor should be to maintain a full supply of the rations carried with the troops, whether on the person, in the regimental trains, or in the supply columns. To accomplish this it will generally be necessary to utilize the food, and still more so the forage, available in the country through which the army is marching. In the case of a long line of communications through a country

devoid of railroads or waterways, seizure of food supplies becomes inevitable.

366. When the local supplies are insufficient to subsist the troops, which will generally be the case, use will, if possible, be made of railroads, canals, and rivers to furnish supplies direct to the regimental trains; otherwise the troops will have to live on depots or on the supply columns which are replenished by shipments from the rear.

FIELD RATION.

✓ 367. The field ration ^a consists of—

Meat: Fresh beef or mutton, 20 ounces; or canned meat, 16 ounces; or bacon, 12 ounces.

Bread: Flour or soft bread, 18 ounces; or hard bread, 16 ounces. Baking powder, 0.64 ounce; or hops, 0.02 ounce; or compressed yeast, 0.04 ounce.

Vegetables: Beans, 2.4 ounces; or rice, 1.6 ounces. Potatoes, 16 ounces; or potatoes, 12.8 ounces, and onions, 3.2 ounces; or desiccated potatoes, 2.4 ounces; or desiccated potatoes, 1.92 ounces, and desiccated onions, 0.48 ounce; or desiccated potatoes, 1.92 ounces, and canned tomatoes, 3.2 ounces.

Fruit: Jam, 1.4 ounces.

Coffee: Coffee, roasted and ground, 1.28 ounces; or tea, 0.32 ounce.

Sugar: 3.2 ounces.

Seasoning: Vinegar, 0.32 gill; or vinegar, 0.16 gill, and cucumber pickle, 0.16 gill. Salt, 0.64 ounce. Pepper, 0.04 ounce.

Soap: 0.64 ounce.

Candles: 0.24 ounce.

✓ *The simplest efficient ration* consists of bacon, hard bread, coffee, and sugar, as authorized in the field ration.

TRAVEL RATION.

✓ 368. Soft bread, 18 ounces; or hard bread, 16 ounces; canned corned beef, or corned-beef hash, 12 ounces; baked beans, 4 ounces; canned tomatoes, 8 ounces; coffee, roasted and ground, 1.28 ounces; sugar, 2.4 ounces.

^a Fresh beef, potatoes, and onions are issued in the field only when procurable locally.

✓
EMERGENCY RATION.

369. The emergency ration is prepared under direction of the War Department, and is put up in hermetically sealed tins.

MODIFICATION OF THE RATION AND EXTRA ISSUES.

370. The ration is established in Army Regulations and can be modified only by orders from the War Department. When very cold weather or great hardships are expected, authority for a change or increase of the ration should be obtained in advance, if deemed necessary. If the state of supplies warrant it, the commander in chief of an army in the field may, after successful operations involving great exertions, order a temporary increase of the ration to expedite recuperation of the troops.

When the rations carried by soldiers are unavoidably lost or damaged, extra issues may be ordered by the commanding general.

✓
RATIONS CARRIED BY A COMMAND.

371. The rations of a command are carried in the packs, haversacks, or saddlebags, in the regimental trains and in the supply columns.

The number of rations carried will vary greatly, depending upon the proximity of depots, the amount of transportation available, and the supplies to be found in the country. The following may be assumed as the minimum:

On the man or horse: 1 emergency ration and 1 field ration.

In the regimental trains: 2 field rations.

In the supply columns: 3 field rations.

Total: Rations for seven days.

Leaving the tentage behind and using only the simplest efficient ration, the same transportation will carry subsistence for fifteen days without difficulty.

METHODS OF SUBSISTING.

372. *On the country.*—As a general rule, soldiers will be required to cook their own food. Even when billeted in private houses no assistance will be demanded except pursuant to personal agreement. Cooking and baking facilities may, however, be utilized, care being taken not to interfere with the subsistence of families.

373. The food supplies levied in a theater of operations are obtained by direct requisition on the part of the troops for immediate use, or by systematic collection into depots. Requisitions must in all cases be regarded as official and not as private acts. Seizure of supplies by individual soldiers will be punished as looting.

374. Direct requisition by troops may be resorted to on the march or in detached operations. Fractions of the command will be assigned to sections of country from which to draw supplies. In case of considerable variance in the results, commissary officers will equalize them in the distribution.

Detachments making requisitions will be commanded by officers whenever practicable, and will request cooperation of the civil authorities.

375. The commanding general may order cash from government funds, or from captured public funds, or from money contributions levied on the communities to be paid for food, forage, materials, means of transportation, labor and services. This procedure will often produce supplies when other methods have failed.

In all cases when cash is not paid, a numbered receipt, duly signed, should be furnished, a carbon copy or duplicate on a stub being retained.

376. Cavalry detachments and advance guards will be directed to leave guards over supplies collected in excess of their needs, and to turn them over to following troops.

377. By extending operations over wide sections of country large quantities of food and forage may be collected to replenish supply columns and fill depots. The work will usually be in charge of commissary officers connected with the service of the line of communications. The troops are only utilized when necessary to stimulate deliveries or to overcome resistance.

378. While a well-organized system of requisitions may be of great service in relieving the immense amount of transportation connected with the feeding of a large army, exclusive reliance can not be placed thereon, even in the most productive countries. As soon as the army comes to a halt, or when it advances slowly, recourse must be had to shipments from the base.

379. Humane treatment of the inhabitants will generally serve our purposes better than harshness. However, when the population shows a hostile disposition, the degree of severity necessary to prevent jeopardy of the troops and to preserve their condition for future exertions, should not be lacking.

380. The order to collect supplies in a hostile country will often make it necessary to impress means of transportation and labor to

facilitate delivery, and may require the operation of flour mills, bakeries, etc., under charge of officers.

381. From depots.—Subsistence depots are of two kinds, namely, stationary and movable. The former are large accumulations of food supplies, including emergency rations, from which shipments are made to the army; the latter conform to the general movements of the field army and, whenever practicable, make issues direct to the troops. They are generally located on railroads, waterways, or crossroads for convenience not only of transportation but also of making issues.

Depots in our own country are filled by shipments made by the Subsistence Department, by deliveries made by contractors, or by purchases in open market. In the enemy's country depots may be formed of supplies obtained by requisition or by purchase with the revenues or money contributions of the country, or by shipment in large quantities from the base. The principal reliance will be placed on the latter method.

382. From supply columns.—The rations and forage carried in supply columns are to be considered as a rolling reserve, which is not to be touched until subsistence on the country or from depots has become impracticable. As soon as the wagon trains are emptied they proceed to the depots or supply stations to refill and then return to the troops, both trips by forced marches. During an advance a supply train approaches the troops at the end of each day's march and makes issues direct or turns over supplies to the regimental trains. During a retreat a supply train halts and awaits the arrival of the troops.

The commanding general of a corps generally retains control of the supply columns, although they may be temporarily distributed among the divisions on the march and in camp, and suitable portions may be assigned to detached commands.

383. From the emergency ration.—The emergency ration will not be opened except by order of a commanding officer, or in extremity.

Detachments operating in country impassable for the ordinary means of transportation may be supplied to a large extent with emergency rations.

SUBSISTENCE DURING MOVEMENTS OF CONCENTRATION.

384. During concentration, usually made by rail or boat, the troops will carry, in addition to the emergency ration, travel rations for the number of days of the journey plus one, so that upon arrival their subsistence for the first day is already provided.

385. Small parties of men and isolated units may be paid coffee money at the rate of 21 cents per man per day of travel, but on the regular lines of transportation liquid coffee should be furnished three times a day at stations provided by the Commissary Department. For long journeys the best system is to set up coffee boilers in a baggage or freight car of each troop train, thus obviating interference with railroad schedules and expediting the movement.

386. The necessary grain and hay for animals should also be carried on the train, and the cars should be of the kind permitting feeding and watering without unloading.

387. On passenger boats subsistence will usually be provided in the same way, but on vessels of the Government transport service the troops will be subsisted by utilizing the food supplies and messing facilities of the ship.

FRESH BEEF IN THE FIELD.

388. Troops in the field should be supplied with fresh beef every other day, if practicable. On the march the supply may be less frequent, depending upon transportation facilities and local supplies, and during and immediately following large engagements it may cease for some time, depending upon circumstances.

389. The supply may be furnished in the form of dressed and refrigerated beef delivered in cars at convenient sidings or kept in vessels at suitable landings; or beef cattle may be obtained by requisition or purchase in the invaded territory; or herds of beef cattle may be driven with the command and slaughtered as needed.

The first method will in most cases be preferred, because of sanitary, economical, and other advantages. In cold or cool weather dressed beef may be transported in wagons like other food, but in warm weather the haul should not exceed two hours in duration, unless ice can be furnished with the shipment.

390. The local resources of invaded territory in the way of fresh meat should always be utilized. The animals brought in by foraging parties will be assembled in corrals established on the line of communications, and the slaughtering and issue generally conducted by commissary officers.

391. The third method presents many annoyances, involves a great deal of labor in the guarding, herding, feeding, watering, and butchering of animals, and the results often are but mediocre. However, in regions distant from railroad or water communication and deficient in local supplies, there is no other way of securing

regular issues of fresh beef. The details of the organization and management of this method of supply are to be found in the Manual of the Subsistence Department.

FUEL AND FORAGE.

392. The supply of fuel necessary for cooking and heating is usually drawn from the resources of the theater of operations by requisition or purchase. The accumulation and distribution of fuel is attended to by officers of the Quartermaster's Department. In the emergencies of war, fences, lumber, and old buildings will be seized for fuel. In some cases on the march it is desirable to carry a small supply on wagons, sufficient to cook the first meal. The question of the supply of fuel existing in a country to be invaded should always be considered before beginning the campaign, and measures should be taken to supply the deficiency, for the want of fuel in a treeless country may prove a serious question.

393. The full allowance of forage is 14 pounds of hay and 12 pounds of grain for horses, and 14 pounds of hay and 9 pounds of grain for mules.

In campaign the resources of the country in forage must be utilized to the fullest extent possible. The nature of the country, the season of the year, and preceding operations of our own or the enemy's forces may have been such that no forage remains available. In the course of operations it will generally be necessary to form depots of grain and compressed hay at railroad points easily accessible for the troops.

394. On the march oats is usually the only forage carried. The regimental train of the cavalry and artillery should carry a supply for two days. Additional supplies will be carried in the forage wagons of the supply columns, the amount depending upon local conditions.

In the cavalry a small reserve of oats—about 6 pounds—will be carried on each horse.

Draft animals should receive full forage as long as possible.

ISSUES.

395. The issue of rations involves a good deal of labor, which should be reduced as much as possible. The frequency of issue in campaign is governed by circumstances. In stationary camps rations may be issued as in garrison. On the other hand, when the

army is in motion rations will be issued for much shorter periods. In order to keep the rations with the troops up to a desired maximum it will often be necessary to make daily issues. Such issues are unavoidable anyway with respect to articles not usually carried in full by troops—such as fuel, forage, straw, and also as to beef.

The commanding generals will designate the place and hour, generally in the evening, for making issues.

Whenever practicable, the division commissaries will issue direct to regiments.

The necessary number of wagons of the regimental train, under their commissary officer, proceed to the designated place and draw the rations on consolidated ration returns approved by the regimental commander, thus replacing the rations issued or to be issued on that day to companies, troops, batteries, and detachments.

ARTICLE IX.

TRANSPORTATION.

(A) WAGON TRAINS, AMMUNITION COLUMNS, AND SUPPLY COLUMNS.

WAGON TRAINS.

396. The baggage, tentage, at least two days' rations, and extra ammunition of the troops are carried in wagons which are assigned to the units and remain in their charge.

The standard wagon is the 4-mule army wagon, usually known as the escort wagon. The load should not exceed 3,000 pounds on good roads; for average conditions 2,500 pounds is considered a fair load.

The quantity of tents and baggage will depend upon the resources and climate of the theater of operations, the season of the year, the character of the campaign, the condition of the roads, and other considerations.

The kind and amount of means of transportation necessary under the circumstances indicated will not always be available; the troops will then be forced to reduce their impedimenta accordingly. The normal allowance is as follows:

	Light train.			Regimental train.	Remarks.
	Led horses.	Ammunition wagons.	Ambulances.		
Infantry:					
Company.....	4	1	...	1	
Battalion.....	16	3	1	5	
Regiment.....				17	The led horses include authorized additional mounts for officers.

	Light train.		Regi- men- tal train.	Remarks.
	Led horses.	Ammunition wagons.	Ambulances.	
Cavalry:				
Troop	6	.....	.....	2
Squadron	28	.....	.....	9
Regiment	89	.....	1	29
Field artillery:				
Battery	6	.....	.....	3
Battalion	21	.....	.....	10
Regiment	69	.....	1	32
Brigade headquarters .....	.....	.....	.....	2
Division headquarters .....	.....	.....	.....	3
Corps headquarters .....	.....	.....	.....	4

The allowance for other mounted troops corresponds to that of the cavalry; for other foot troops, to that of the infantry.

Allowing 850 pounds for tentage, 250 pounds for officer's baggage, 350 pounds for cooking utensils, with two days' rations and grain, the company and troop wagons would be loaded with about 2,500 pounds each.

With beef on the hoof, no tentage, and scant vegetables, one escort wagon load will supply a company for ten days.

397. The number of wagons with the troops may be increased in order to carry additional war material and supplies to overcome special difficulties of climate or country, or to transport sick and wounded. For the latter purpose the commanding officer may, in case of necessity, seize means of transportation.

More frequently, however, a reduction in the allowance will be rendered necessary by the lack of means of transportation, by the nature of the country, or the condition of the roads.

In active campaign the tentage will usually be stored at a temporary base, and the allowance of baggage reduced to bare necessities. The wagons thus released may be utilized to form additional trains in the supply columns. The wagons remaining with the regiment will then be divided into two groups—those carrying rations exclusively and those carrying utensils and baggage.

In case of detachments too small for the assignment of sections of supply columns, additional wagons may be ordered to carry the reserve ammunition and rations for the required number of days.

The conditions of service are so various that in many cases it will be necessary to make some departure from the standard of equipment and transport of troops. This will be done under authority from the Secretary of War. In emergencies the commanding officer of the detachment, corps, or expeditionary force will fix the allowance for the occasion.

All unauthorized increase of the baggage and trains of troops is prohibited.

The various artillery carriages of field and siege batteries, as well as all ammunition wagons attached, are not counted as part of the regimental train.

398. The wagons for regimental headquarters go with the train of one of the battalions on the march. The means of transportation for a general officer and his staff, under charge of a quartermaster, marches with the train of some unit, or it may be ordered to march separately.

399. Each quartermaster, with his assistants, must be with his train. He will require it to take and keep its proper place in the column, and will see that his wagons do not needlessly impede the march of troops or the movements of trains in rear.

400. None but authorized wagons are allowed to march with the train. Those of the several headquarters, the regimental wagons, and traders' wagons will be conspicuously marked.

The wagons carrying the headquarters' baggage and supplies usually march at the head of the assembled regimental trains; the field telegraph, field post-office, and provost guard wagons go with the headquarters transportation.

401. The light train of the battalions may, when no conflict with the enemy is in prospect, be united with the light train of the regiment under charge of an officer, the whole marching immediately in rear of the regiment.

The regimental train will be under control of the regimental quartermaster, and usually carries not less than two days' rations

and forage for the command to which it belongs. On ordinary marches it follows a mile or two in rear of the column if practicable, but at the end of the day's march or in the evening it will be brought up so that camp may be formed and supplies issued.

402. Trains must at all times be provided with necessary guards. When there is danger of attack additional measures will be taken for their protection.

The regimental trains will be guarded, as far as practicable, by men with the trains, assisted by convalescents and others non-effective in the ranks, and by dismounted men in the cavalry and men from the reserve in the artillery. The train of a brigade commander will be protected by the guard of the regimental train to which it is attached.

The commander of a headquarters guard will post sentinels over the train of the headquarters to which he is assigned, rather than call on the troops for a special detail for that purpose.

Herds of beef cattle will require small guards (with some mounted men) beside drivers. Supply columns will seldom need extra guards. Wagons containing funds will be provided with a special guard.

Train guards, in addition to protecting all property in their vicinity, will be instructed to lend a hand when a wagon is stalled, to preserve order, and to assist in the defense of the train. Civilian teamsters and others on duty with the train will not be permitted to leave. In case of danger, any attempt by impressed drivers to cut the traces to effect an escape must be summarily stopped.

No persons will be allowed to ride on the wagons without permission of the officer in charge.

403. General officers and commanders of independent detachments will cause frequent inspections to be made to see that there are no unauthorized vehicles with the command, that the baggage of officers and others does not exceed the prescribed allowance, and that none of the wagons or pack mules are overloaded.

The wagons of the artillery and the trains will not be allowed to carry any but the authorized articles. Public animals will not on any occasion be harnessed to a private carriage.

404. Officers temporarily dismounted, and camp followers, must not expect troop or battery commanders to furnish mounts as a favor. To obtain the use of surplus public animals they will be required to produce an order in writing from higher authority. No orders necessitating the dismounting of a trooper will be issued except in emergencies which can not be met in any other way.

AMMUNITION COLUMNS.

405. The great expenditure of ammunition possible with magazine rifles and quick-firing field artillery makes the arrangements for a timely renewal of expended ammunition of vital importance. Under modern conditions a reserve of 120 cartridges for every rifle and 100 rounds for every gun of the division should be carried, necessitating approximately two ammunition wagons for each battalion and one caisson for each gun.

The reserve ammunition of a division is carried in an ammunition column composed of 105 wagons. Each column is divided into five sections of 21 wagons each, three of the sections carrying cartridges for small arms, and two carrying artillery ammunition, stores, and spare parts.

Each column is commanded by an officer in charge of an organization about the size of a full company, subject to the orders of the commander of the artillery of the division. On the march the ammunition column of a division follows in rear of the main body, being separated therefrom by the field hospitals and bridge train.

406. In case of an engagement the ammunition column will halt at a designated place at least 3 miles in rear of the line. The commander reports to the commander of the artillery of the division and remains in communication with him so that orders may reach him promptly. The place selected should be near a road leading to the front and have good communication in various directions.

In the absence of orders, when the firing indicates a serious engagement, the ammunition columns halt; but one infantry section and one artillery section of each column continue to approach the battlefield, the commander in the meantime taking the necessary steps to ascertain the location indicated by the course of the battle or the orders of the commander. Corps, division, and artillery commanders should be notified of the position of the ammunition columns.

407. Cavalry divisions are provided with light ammunition columns carrying cartridges for the rifles and ammunition for the horse batteries. While engaged in reconnaissance the number of ammunition wagons is regulated by the commanding officer; in many cases the ammunition for cavalry detachments will be carried by pack trains.

408. Ammunition columns refill from ordnance trains, which load at principal depots on the line of communications or at a railroad terminus and follow the army under orders from the commander in chief.

SUPPLY COLUMNS.

409. Supply columns are provided at the rate of one for each division. They are divided into three sections, each composed of about 27 wagons; each section carries one day's rations and forage for its division. The supply columns form a *rolling reserve* of three days' rations and forage; they remain about a day's march in rear of the troops, as long as local supplies are available to replenish regimental trains.

As soon as it is necessary to make issues to the latter, one section of each column called a *supply section* moves up to the troops at the end of the day's march; the other two sections, called *reserve sections*, remain about half a day's march in rear.

A herd of beef cattle, capable of supplying two days' beef on the hoof, may be attached to each supply column; half the herd should march near the regimental trains. Reserve herds may be organized when necessary.

RESERVE SUPPLY COLUMNS.

410. When the distance from railway stations or magazines renders it desirable, additional supply columns carrying at least three days' rations and forage will be organized. These supplies are under control of the commander in chief and come into use especially at the time of concentration of troops for action. When the army is stationary the supply columns transfer stores from the magazines to the troops.

(B) TRANSPORTATION BY RAIL.

411. The transportation of persons forming part of or connected with the military service, of the material of war and of military supplies of every description, is effected by the Quartermaster's Department in conformity with Army Regulations. The basis for such action will in each case be a military order issued by competent authority.

412. For the transportation of individuals the local quartermaster issues transportation requests which the holders convert into tickets. For detachments and organizations traveling on regular trains, whether in separate cars or as ordinary passengers, the commander or his quartermaster will have charge of the transportation request.

413. The commander should be furnished with a copy of the contract and an itinerary of the route, showing where change of cars is necessary and where stops are to be made for subsistence of the men or watering and feeding of the animals.

414. With organizations at war strength, separate troops of cavalry, batteries of artillery, and commands of infantry or engineers

larger than one company, will generally require special trains. The capacity of trains will depend upon the character of the road and its equipment, and especially on the grades of the roadbed; also upon whether the troops are accompanied by their full allowance of wagon transportation, and the manner in which it is to be carried. As it is preferable to have trains of moderate size with good speed rather than long trains with low speed, the maximum of troops to be assigned to one train may be stated as follows:

- 1 battalion of infantry, or
- 2 troops of cavalry, or
- 1 battery of artillery, or
- 1 company of engineers with bridge train.



415. The arrangements with the railroad companies may be general or special; that is, the Quartermaster's Department may have an agreement with respect to all the troops that may be sent over a line, or a separate contract, after formal bids, may be made in each case. The former method is greatly to be preferred, especially in time of war.

416. Troops proceeding to preliminary rendezvous or camps of instruction may be supplied with animals and wagons after arrival; but organizations going to the theater of operations by rail should be accompanied by their full equipment of means of transportation, and supplied with travel rations and forage for the journey and one day in addition.

For journeys of not exceeding one day the travel rations will be issued before starting. For longer journeys the rations will be kept in a baggage or other car and distributed as required.

417. For journeys requiring the troops to spend a night on the train, standard sleepers should be provided for officers and tourist sleepers for the men.

Animals will be loaded in stock cars; artillery carriages, wagons, pontoons, and ambulances on flat cars; property and forage in box cars; baggage and travel rations in baggage cars.

418. Trains are usually made up in the following order:

1. The flat cars with army wagons, guns, carriages, pontoons, etc.
2. Box cars with property.
3. Stock cars.
4. Box car with forage.
5. Baggage cars, the last one containing travel rations, with open end to the rear.
6. Passenger coaches or tourist sleepers.
7. Standard sleeper for officers.



If it be necessary to divide a train some officers and men should be with each section. The troops should not be separated from the animals if it can be avoided; but if the animals be shipped in separate trains selected detachments under officers will accompany them, and such trains should precede the troops.

LOADING.

419. Upon receipt of orders for the movement of troops by rail the quartermaster charged with supplying the transportation will arrange with the railroad authorities for the necessary cars. He will procure lists, with weights, of all property to be shipped and make out the bills of lading. He will also look after the loading facilities, provide material for blocking and lashing, and construct the necessary ramps.

420. Upon arrival of the cars the commanding officer will be notified, and loading will begin pursuant to his orders. In the meantime the quartermaster will make an inspection of the cars and see that they are clean and conform to the terms of the contract. Stock cars should be inspected with special care to see that they are in good repair throughout. Projecting nails, bolts, and splinters, loose boards and rotten flooring, broken fixtures on hayracks, doors, or troughs—all are sources of danger or discomfort to the animals and of loss to the Government.

The cars will then be assigned to organizations and plainly marked.

421. The following order should generally be observed in loading: Company property;

Officers' baggage, men's baggage, ammunition, rations, hospital stores, tentage, and cooking utensils;

Guns and carriages of artillery or pontons of engineers;

Army wagons, ambulances, and forage;

The checkable baggage of officers and men and the travel rations (in baggage cars);

Horses and mules.

The baggage of different organizations should be kept separate. All property and baggage should be plainly marked.

A couple of men as guard should be left in each car containing baggage or rations. Cars containing property will be locked and sealed by railroad employees prior to departure of train.

422. Artillery and other carriages should be made secure by lashings and by nailing blocks of wood to the flooring under the wheels.

Changes in the foregoing order of loading may be necessary when troops have to make a march to the loading station and when they

must use their own means of transportation to carry property and baggage to the train.

423. The loading will generally be done by the troops, making use of such railroad appliances as may be available.

The time required for loading each train will depend upon the railroad facilities and upon the experience of the troops. For troops leaving station to go into the field or changing station in the field the time required should not exceed—

1 hour for infantry;

2 hours for cavalry and light artillery;

3 hours for heavy artillery and for engineers with bridge train.

424. Animals may be loaded conveniently through the chutes of stock yards or from freight platforms on a level with the floors of cars. In other cases portable or improvised ramps will have to be utilized. When it is likely that animals will have to be unloaded at places where there are no facilities, one or more portable ramps, or material for improvising them, should be placed on the train.

425. The cars should be clean before loading animals. Fresh sawdust or sand may be placed on the floor, but no hay or straw. The loading should proceed without noise or confusion, the animals being led quietly to the door of the car and turned over to the four men, two for each end, who do the loading. The animals should be packed as closely as possible, except in very hot weather, alternate animals facing in opposite directions. The halter straps will be removed, but the headstalls will not be taken off. Gentle animals should be placed opposite the doors and should be the last put in. The halter straps will be placed in the forage car.

Each train should be equipped with water buckets, lanterns, hatchets, and iron bars.

ENTRAINING OF TROOPS.

426. The arrival of troops at the loading station should be timed so that there will be no delay in waiting for cars. When the barrack, camp, or bivouac is not more than a mile from the station, troops should not be required to fall in until notice has been received from the quartermaster that the necessary stock, baggage, and sleeping cars are at the station and have been inspected and assigned. The command will then be marched to the train and there formed in line with the companies opposite their cars. The cars will be entered simultaneously, each company commander distributing his men in cars in accordance with the assignment. Non-commissioned officers will have seats near the doors. Seats will be

reserved for men absent on detail loading the horses, and finishing the loading of property.

427. All movements of the troops in loading, entraining and de-training, feeding and watering, and exercising men and horses should, as far as practicable, be made in military formation and pursuant to command, thus avoiding confusion and gaining time.

428. In the cavalry, the troops will dismount upon arrival and unsaddle and unbridle. Each man's equipment, except halters, canteens, and saddlebags, will be securely tied up in a gunny sack marked with the number of the man and letter of his troop, and will immediately be loaded in a car assigned to the troop. Each troop, except the horse holders, will then be marched to its cars and deposit the arms, canteen, and saddlebags. It will then march back, relieve the horse holders and load the horses. The horse holders when relieved take places in the cars and remain there unless otherwise ordered.

429. In the field artillery a similar method is pursued. The harness is usually tied up in sets, plainly marked, and loaded in a box car.

INSPECTION AND ASSIGNMENT OF PASSENGER CARS.

430. Before accepting passenger cars for the use of troops the commanding officer will cause his quartermaster to make a thorough inspection to satisfy himself that the terms of the contract are complied with. The cars must be clean, fully supplied with water and ice, and sufficiently lighted and heated. The sleeping accommodations should be the same as usually furnished to passengers, the urinals and closets should be in good condition, and toilet paper and the water necessary for operating them be supplied.

The number of men assigned to cars and the organizations from which they are to come will be marked on the steps or sides of the cars.

CONDUCT OF THE TROOPS.

431. Delays caused by the troops, whether in loading and entraining or during the journey, are inexcusable. They interfere with railroad schedules and are generally a source of increasing annoyance.

432. The railroad employees and subordinate officials have nothing to do with questions of military discipline and administration. Requests or complaints they may have to make will be addressed to the station agent or to the conductor of the train.

The troops for their part must not interfere in any way with the operation of the railway service. Officers and enlisted men will not

attempt to give orders to employees, and protests, complaints, and arguments are strictly prohibited. The commanding officer is the sole intermediary between the troops and the railroad personnel. In case of deficiencies and other matters requiring correction he will address himself only to the official in charge.

433. The senior noncommissioned officer in each car will be held responsible for the preservation of cleanliness and good order. Spitting on the floors, defacing of woodwork and windows, and every species of disorder must be prevented.

The commanding officer, taking into account the circumstances of the case, may station sentinels at the doors of each car to prevent unauthorized persons from entering them and to keep soldiers from riding on the steps, platforms, or tops of cars, and from leaving the car without permission. If it be desirable to exercise the troops, they should leave the cars in a body, under their officers.

Smoking is prohibited in cars loaded with forage or artillery ammunition.

The commanding officer will cause frequent inspections to be made to see that his instructions for the preservation of cleanliness and good order are fully carried out.

434. When the stock cars provided are such that the animals can be fed and watered on the train, it will not be necessary to unload them for exercise or recuperation unless the weather is very hot and the journey long. Should the railroad company insist upon unloading the animals in compliance with law, the commanding officer will, in time of peace, give the necessary order.

435. On occasions when troops have been allowed or ordered to leave the train for exercise or duty, the commanding officer will cause the "assembly" to be sounded five minutes before departure.

DETRAINING AND UNLOADING.

436. The train schedule should be arranged for arrival at destination in the morning. The troops will be notified in time to prepare for detraining.

The officers and the guard are the first to leave the cars. The commanding officer meets the staff officer sent to the train, may receive instructions, gets his bearings and orders the troops to detrain. As soon as the passenger coaches or sleeping cars are empty the quartermaster, or a specially designated officer, accompanied by the conductor, if practicable, will make an inspection of the cars and note their condition; the result will be reported to the commanding officer.

437. The troops will march to camp without delay, leaving details to bring up the property. If the camp is distant, arms will be stacked at a convenient place, and a part or the whole of the command engage in unloading wagons, animals, and property.

438. In the cavalry the men are marched to the vicinity of the stock cars at the unloading place. The arms, saddlebags, and canteens are placed in line on the ground. The saddles are then unloaded and placed with the preceding articles under guard. The halter straps are procured from the forage car, the horses are unloaded, saddled immediately, and the troops are formed.

Animals will be unloaded quietly, each one, after the halter strap is put on, being led to the opening so that his body will be athwart the car before leaving it.

The command may be marched to camp at once, if near the station; otherwise, picket lines will be stretched, or the horses held at a convenient place while the property is being unloaded.

Artillery will unload in a manner similar to that of cavalry.

439. All formations must take place at sufficient distance from the cars to prevent confusion in the immediate vicinity.

440. On account of accidents, freight blockades, or action of the enemy it may be necessary to unload in the open country. In such cases the portable or improvised ramps will have to be utilized. Lacking these, the train may be stopped in a low cut, and cross-ties, baled hay, car doors, and turf utilized for the rapid construction of ramps of sufficient height to permit unloading of animals.

(c) TRANSPORTATION BY WATER.

GENERAL PROVISIONS.

441. The transportation of troops, animals, and supplies at sea is effected by the Army Transport Service, which is organized as a special branch of the Quartermaster's Department. Transportation on inland waters is comparatively limited, and would generally be the subject of special arrangements with steamboat companies.

442. As soon as practicable after the promulgation of orders requiring the transportation of a body of troops, the commanding officer thereof will furnish to the War Department a statement setting forth the number of officers and enlisted men belonging to his command to be transported, and showing, in time of peace, the number of wives, children, other members of families, and servants; also an accurate estimate of the weight of property and baggage to be shipped. When distance, lack of time, or other circumstances

render it desirable, such statement will be made by telegraph; and the War Department will in like manner be informed of any changes, in order that the latest accurate details may be available before arrival of the troops.

443. When troops are ordered to prepare for service beyond the sea, company commanders and medical officers will see that all men who have any infectious or contagious disease are reported for discharge or transfer to other commands. Such men will not be taken on transports.

All organized troops en route for service in the Philippines will, prior to departure from their stations, provide themselves with certificates that they have been inspected and are protected against smallpox.

444. Ordinarily the troops to form an expedition will be assembled in temporary camps near the port of embarkation several days before the probable date of sailing. When the enemy has no fleet, and single transports may therefore carry reinforcements without escort, arrangements may be made to march the troops from the cars direct to the transport. This method of embarking troops will be employed for changes of station in time of peace whenever practicable.

PRELIMINARY ARRANGEMENTS.

445. The company property and rations, all articles not indispensable in camp, and all baggage which can not be taken to staterooms of officers or the quarters of the men will be loaded on the vessel as soon as may be convenient and with due regard to accessibility and the order in which the property will be required by the troops on landing.

The ammunition will be loaded first and put into the magazine.

The property and baggage of each company will be stored separately, as far as possible, and not mixed with other stores.

446. All articles of an explosive or highly combustible nature are to be excluded, and no one is allowed to have inflammable oils or explosives in his possession.

447. The baggage of troops will be securely packed beforehand, so as to take up the least amount of space.

448. Every article of baggage or property and every package that is put on board must be plainly marked or labeled. If large, to be labeled on each end and on top, the label to give the name of the owner and a general idea as to the contents.

449. The commanding officer will communicate with the general superintendent and with the transport quartermaster concerning arrangements for loading and embarkation.

He will cause a reconnaissance to be made of the roads and streets leading from the camp to the wharf or pier in order that the command may effect the march without confusion or delay and without inconvenience to other traffic.

He will make a survey of the ship in person and supervise the assignment of the units of his command, causing the same to be marked on deck plans furnished by the transport quartermaster.

At the same time a staff officer of the command will consult with the transport quartermaster and draw up a memorandum of the number of sentinels and their posts on board required during the embarkation.

EMBARKATION.

450. On the day set for sailing all camp equipage and baggage still in possession of the troops and required to be stowed on the transport, including light trunks of officers and valises of the men, will be conveyed to the wharf accompanied by details of men to load this property and to guard it pending the arrival of the command. The cooking utensils will be cleaned and neatly packed; clothing or similar articles, tightly packed in lockers, and tentage securely tied in bales, with the poles in crates or bundles.

451. The command will be marched to the pier in convenient fractions and at suitable intervals to avoid delay. The first transport guard under command of its officer will march with the first battalion. Upon arrival at the pier the guard will be marched on board and will immediately be posted and instructed under the direction of the new officer of the day, assisted by the transport quartermaster.

452. The assignment having been explained to company commanders, the command will then be marched on board by company in a quiet and orderly manner, and each company will be conducted to its quarters by a staff officer of the command. The rifles will be placed in the designated racks and the packs and equipments stowed in the proper places. In order to prevent confusion and to keep the gangways clear it is necessary that all men not on duty be held in their assigned quarters until the whole command is loaded.

453. The men will be informed of the location of the water supply, latrines, wash rooms, etc., and be instructed in their use, sanitation, and preservation.

454. Departure from camp should be so timed that the whole command will be on board for the first meal which is served at the next regular meal hour after embarkation.

455. The assignment of officers to staterooms, according to rank, is usually made, after embarkation, by the transport quartermaster, who will take cognizance of reservations made by higher authority. Separate staterooms are usually provided for general officers and for the commanding officer of the troops. The permanent quarters of the transport quartermaster, transport surgeon, master, and other ship's officers are not open for assignment.

456. Officers are allowed to have only steamer trunks and hand baggage in their cabins. No baggage of any description shall be allowed on the upper decks, in the saloon, or in the smoking room.

457. Commanding officers will exercise special care that no unauthorized persons and articles accompany their command and its property in going on board.

458. After the command has embarked neither officers nor enlisted men of the command are permitted to leave the ship without authority from the commanding officer.

459. Before sailing, the commanding officer will send a return of the command to The Adjutant-General and to the commander of the department in which the port is located. He will also make a special return to the same authorities of all casuals and unattached officers and enlisted men who are passengers.

DUTIES ON BOARD.

GENERAL REGULATIONS.

460. Each transport will be provided with a bulletin board $2\frac{1}{2}$ by 3 feet, with hinged glass cover, properly framed to lock. It will be hung in a conspicuous place, and all orders and announcements which are to be copied will be posted thereon.

461. Suitable extracts from the transport regulations, properly printed and framed under glass, will be displayed at conspicuous places on board by the transport quartermaster.

These will contain the rules governing smoking, noises, fire, etc.

462. All officers and noncommissioned officers are required to give careful attention to the police and cleanliness of the parts of the ship occupied by their men, and to enforce the regulations relating to the conduct of enlisted men on board.

463. Defacing paint or woodwork, spitting on floors, leaving packages or bundles about the deck, crowding about the ports or hanging clothes in them is prohibited.

464. A noncommissioned officer will be in charge of and at all times present and alert in the quarters of each company.

465. Loud talking, gambling, profane or obscene language, and all unnecessary noise and confusion are strictly prohibited.

466. No officer or soldier shall go on the bridge, except the commanding officer and transport quartermaster, when necessary.

467. All persons will refrain from talking with the watch officer on duty.

468. Smoking will be allowed on the upper decks only and in the smoking room—officers will not smoke in the saloon nor in their staterooms.

469. No intoxicating liquors, wine or beer will be allowed to be taken on board the transport, except in charge of the transport surgeon for medicinal purposes, and no food of any kind will be taken into the sleeping quarters of the men.

470. Wet clothes will never be hung about the berth decks, but will be taken on deck and hung on lines provided for that purpose.

471. Officers and enlisted men will refrain from making complaints direct to officers of the ship or members of the crew, and will not enter into controversy with them concerning deficiencies of service, equipment, or supplies. When there is reasonable ground for dissatisfaction proper representation will be made by officers to the police officer, the mess officer, or the officer of the day, as circumstances may require; in important cases they will address themselves to the commanding officer.

472. When recruits or convalescents are on board they will be divided into temporary companies and put under noncommissioned officers, or privates detailed as noncommissioned officers, who will enforce these regulations.

COMMANDING OFFICER.

473. The commanding officer will be in command of all troops on board, and will be directly responsible for the discipline of his command.

All requests regarding management of the ship, or complaints in reference thereto, shall be submitted by the commanding officer to the transport quartermaster, who will be responsible for the proper conduct of the transport and the care and disposition of the passengers and freight on board until delivery at destination.

474. It is most important that the commanding officer work in harmony with the transport quartermaster and commissary and with the master of the ship.

These officers must on all occasions use their best endeavors in cooperating with each other in the execution of the duties respec-

tively intrusted to them, in order that by their united exertions the service on which the ship is employed may be performed in the most efficient and satisfactory manner possible.

475. They must by every means in their power cause a good understanding to be cultivated between the crew of the transport and the troops and other persons embarked, setting an example by civility and by showing every attention to the health and convenience of all on board.

476. The commanding officer will ascertain the names of enlisted men of his command skilled in handling ship's boats, and will cause the requisite number to report to the transport quartermaster for assignment to boats.

477. The transport quartermaster will receive the support of the commanding officer in all necessary and lawful measures. Interference with the duties and prerogatives of the transport quartermaster and of the master and with their control of the ship are to be scrupulously avoided, except when necessary in grave emergencies involving the health, discipline, or safety of the command.

478. The routine on board and the uniform to be worn by officers and men of the command when on deck will be prescribed by the commanding officer.

479. The commanding officer, accompanied by the transport quartermaster, the officer of the day, the police officer, and the surgeon, will inspect the berth and mess decks, latrines, bathrooms, hospital, cooking galleys, etc., each morning at 10 o'clock.

Orders will be issued requiring all staterooms to be vacated daily for cleaning and inspection at a fixed hour.

480. Copies of all orders which may affect the crew or the movements of the ship will be furnished to the transport quartermaster.

481. Prior to disembarkation a return will be furnished to the transport quartermaster showing the number of persons of all ranks carried to destination.

482. During the closing days of the voyage the commanding officer of the troops will prepare a report relating to the accommodation, food, and health of the troops, and giving any information which may enable the War Department to detect and correct abuses and punish neglect. This report will be handed to the officer of the Inspector-General's Department detailed to inspect the transport, or to the officer in charge of water transportation, as the case may be, to be forwarded by him to The Adjutant-General of the Army, through military channels, with his report of the inspection. In the event that it is impracticable for the commanding officer to deliver the report in person, he will seal it and turn it over to the

transport quartermaster, who will hand it to the inspecting officer upon his arrival.

POLICE OFFICER.

483. Immediately after completion of embarkation a suitable officer will be detailed as police officer. He will have general charge of the police of all parts of the ship occupied and used by the troops, especially the parts used in common, such as baths, wash rooms, and latrines. He will see that the troop decks are swept clean each morning, and the mess decks after each meal, and will accompany the commanding officer in his inspections.

484. A noncommissioned officer will be detailed on special duty as police sergeant, and will be the assistant of the police officer. He will have immediate charge of the general police, and particularly of all the closets, wash and bath rooms, and of the cuspидors therein and on the upper decks.

485. A noncommissioned officer will be detailed on special duty in charge of each separate wash room, bathroom, or set of closets, under the orders of the police officer. Such number of privates as may be necessary will be detailed to report to the police officer for special duty in connection with the police of the ship.

486. In minor matters concerning the police of quarters, the police officer will deal directly with the commanders of organizations. The latter will report to the police officer any minor deficiencies in water supply, ventilation, toilet facilities, etc. If not able to rectify them himself, the police officer will apply to the transport quartermaster.

MESS OFFICER.

487. Before embarkation a suitable officer will be detailed to have charge of the enlisted men at mess. A noncommissioned officer will be assigned to special duty under his immediate orders, and such assistants to cooks and bakers and such number of waiters as may be called for by the transport commissary will be detailed by the commanding officer.

488. All orders affecting the mess of the men will be prepared after consultation with the mess officer; copies thereof will be furnished to the transport commissary.

489. The mess officer will draw up a scheme for the service of messes in accordance with the facilities of the ship, fixing the time of arrival and departure of each organization, prescribing the doors of entry and exit of the mess room, and arranging all details necessary to prevent crowding and confusion. After approval by the commanding officer this plan will be published in orders.

490. The mess officer will see that the meals are served as prescribed, that the utensils are cleaned and put away, and that the mess deck is properly policed.

491. The mess officer will be responsible for all articles of table furniture used by the troops. He will receipt therefor on taking charge, and will turn them over to the transport quartermaster on departure.

ROUTINE ON BOARD.

492. The following list of calls, amended as circumstances may require, will be published by the commanding officer:

Reveille	6.00 a. m.
Breakfast	6.30 a. m.
Sick	7.15 a. m.
Guard mounting	8.00 a. m.
Inspection	10.00 a. m.
Dinner	12.00 m.
Sick	4.00 p. m.
Inspection	30 minutes before sunset.
Supper	5.00 p. m.
Retreat	sunset.
Call to quarters	8.45 p. m.
Taps	9.00 p. m.

493. At reveille roll call the men will stand at "attention" at or near their bunks.

Immediately after reveille, the bedding, except that which is to go on deck for airing, will be neatly folded and placed at the head of the bed.

494. When practicable, the berth decks of the men are to be cleared of all persons except those detailed to clean them, daily, from 8 a. m. until completion of morning inspection.

495. Advantage will be taken of each fair day to air the bedding of the men on lines provided for that purpose, according to a schedule prepared by the police officer and approved by the commanding officer.

496. Every man not on duty should be vigorously exercised or drilled at least twenty minutes daily. The commanding officer will arrange the schedule in accordance with the space available.

497. Bathing, according to facilities, will be enforced. The police officer will draw up an assignment of hours for the organizations of the command. Company commanders will prepare lists and cause the names of men to be checked off as they bathe.

498. Swimming will be allowed, under the direction of the guard, in harbor where there is no danger. Thirty men only are allowed to swim at one time, and for but fifteen minutes. A boat will always be lowered and in attendance when men are swimming, and

they will not be allowed by the guard to swim more than 150 feet from the ship's side.

499. Inspection without arms will be held by company, daily, at 10 a. m. and thirty minutes before sunset.

Inspection under arms will be held when ordered by the commanding officer.

Inspection in underwear should be held once a week, weather permitting. The surgeon shall attend these inspections and make a general examination as to the condition of the men to ascertain whether they exhibit any signs of disease.

500. Saloon and cabin lights will be put out at 11 p. m., unless special permission is obtained from the transport quartermaster to the contrary, which fact will be reported to the officer of the day.

501. Two or more orderlies will be detailed on special duty for the voyage. They will be furnished with a list of the staterooms with names of occupants. Their stations and hours of duty will be as prescribed by the commanding officer.

502. In fair weather the commanding officer will order one or more band concerts daily for the entertainment of the troops. The music must not interfere with the handling of the ship in going into or leaving harbor. The repertory of the band should include the national airs of the principal nations in order that the commanding officer may be able to respond to courtesies from foreign vessels and other sources.

GUARD.

503. The detail for guard will consist of an officer of the day, an officer of the guard (two when there is a regiment on board), and of the necessary noncommissioned officers, trumpeters, and privates.

504. Guard duty on board ship will be performed in accordance with the principles laid down in the Manual of Guard Duty, with such additions to and modifications of the special orders as may be necessary.

A separate place will be assigned for the guard; other enlisted men will not be allowed to trespass thereon.

505. The guard will be used to preserve order, to protect property, to deny access to certain portions of the ship, and in general to assist in enforcing these regulations and the prescribed routine of duty.

OFFICER OF THE DAY.

506. The officer of the day is responsible for the preservation of good order, and will enforce compliance with these regulations on the part of the troops.

With this object in view he will cause sentinels to be posted at places where disorder, confusion, disregard of regulations, or neglect of property are likely to occur; for example, on the decks, over the water supply, in the wash room, in the mess room, over the baggage when necessary, and at ports, gangways, and ladders when in harbor.

507. The officer of the day will see that the sentinels are properly posted and instructed; that the calls are sounded at the proper time; that the troops wear the prescribed uniform; that there is no disorder at the serving of the meals or the airing of the bedding; that the troops keep out of the engine room and other forbidden parts of the ship; that the lights are extinguished at the prescribed time and that no unauthorized lights are allowed.

He will inspect between decks after taps and at other times when necessary. He will be particularly on his guard against the introduction of intoxicating liquor by men returning from pass, and will require careful inspection of such men and all packages coming on board. All liquor in possession of the men will be seized, and thorough search for it will be made when its presence is suspected.

OFFICER OF THE GUARD.

508. The senior officer of the guard is the commander of the guard and the assistant of the officer of the day in the performance of the duties required of him.

He has the immediate responsibility for the posting and instruction of sentinels. He will make frequent inspection, both by day and by night, and will exact the strictest performance of the duties required of them.

509. The colors will be hoisted at guard mounting and lowered at retreat, under the direction of the guard, which will be formed at the time, the band in both cases playing "The Star Spangled Banner," or, if there be no band on board, the field music sounding "to the color." All persons on deck will face the colors and stand at "attention," and officers and enlisted men, if not in ranks, will render the prescribed salute at the last note of the music.

SENTINELS.

510. The special orders for sentinels will be prescribed by the officer of the day, under instructions from the commanding officer. A written copy of the special orders for all the posts should be kept with the guard.

511. Sentinels must be on the alert and observe everything going on in their vicinity. In compliance with their orders they will pre-

FIRE.

517. It must be impressed on all on board that on of fire the most important and essential thing is silence, quiet waiting for orders and a prompt and orderly execu-

518. As soon as possible after embarking, stations are to be designated where each company is to form on the alarm practicable, before the transport sails, fire drill will be held, preservers put on, and small boats swung out.

The commanding officer will make, in consultation with the port quartermaster, any details for assisting with the work that may be necessary.

These will be selected men, who will be instructed in their duties, and the use of hose and appliances, and practiced in taking their posts once each day and once each evening, under direction of the police officer. They will not be detailed for guard.

On the alarm of fire they will take their posts at once, without waiting for orders.

519. Any person discovering fire will make it known quietly and immediately to the officer of the guard, who will cause the trumpeter of the guard to sound the "attention," followed by the fire call.

520. The commanding officer will be notified at once, and will go on deck to preserve order and to render assistance to the transport quartermaster and the master in any measures that may be necessary.

521. The staff and noncommissioned staff will report at once to the commanding officer to assist him at such place as shall have been previously designated by him.

522. In the absence of the commanding officer the officer of the day is charged with giving the necessary orders; all officers will be careful not to give conflicting instructions.

523. Company commanders will form their companies and remain with them, enforcing order and silence and awaiting instructions.

The guard will form on deck; extra sentinels will be posted where needed, to preserve order.

The medical officer and hospital men will repair to the hospital and prepare to remove the sick, if necessary.

524. The transport quartermaster will see that all staterooms are emptied, and that all passengers, including the women and children, are collected in the main saloon and will remain there with them, unless urgent duties require his presence elsewhere, in which case the senior officer present will assume charge.

525. In case of collision, man overboard, or other form of danger, the regulations prescribed for fire will be observed as far as applicable, all preserving silence, and all commands forming quietly at once in their designated places.

526. The recall will be sounded only by order of the commanding officer: in the case of fire or collision, when the danger is past; of "man overboard," when the lifeboat shall have been hoisted up.

DISEMBARKATION.

527. On nearing port preliminary arrangements will be made with a view to facilitating prompt discharge of the baggage. A guard, commanded by an officer, will be formed just prior to arrival of the

ship at the wharf. This guard will be the first to disembark and will furnish sentinels to guard the baggage and keep the wharf clear.

528. Staff officers, with the instructions of higher authority, and orderlies to act as guides, should meet the command at the wharf.

529. The troops will leave the ship by company, the order of departure being the inverse of the order of embarkation, and will form on the wharf under their officers. Each battalion will make the details required of it, and will then be marched to its camp. The regimental noncommissioned staff and band will march with one of the battalions.

530. The following details will be required:

One group to report to the police officer to clean up the parts of the ship vacated by the troops.

One group to report to the quartermaster of the troops to unload light baggage of officers and men and the camp equipage.

One group to report to the quartermaster of the troops to unload ammunition and property.

Each group of details will be assembled on the wharf, stack arms, unsling packs, and place a guard over them; they will then be marched back to the ship and assigned to work by their officers.

531. The regimental and battalion quartermasters and the regimental and company quartermaster sergeants in conjunction with the ship's officers will have charge of the unloading and sorting of the baggage, ammunition, and property, and of its transfer to camp; each wagonload should have two men as guard.

532. No men, except the authorized details, will be allowed to return to the ship.

The guard on board will be kept until the baggage and property are discharged and the police of mess and berth decks is completed, and will be the last to leave the ship.

533. When the transport is unable to come alongside the wharf the troops will be landed in small boats, towed by launches, or by means of tugs or lighters.

The same general method of procedure will be followed as at a wharf, the details previously arranged and an advance guard being first landed, followed by the men with their arms and equipments; though in this case men who are detailed for fatigue duty on board will not leave the ship with their companies.

Great care must be taken to avoid overcrowding the small boats, and the men will be cautioned to remain seated and quiet.

When there is no wharf, each ship's boat will be manned by men of the crew to row and beach the boat after it is released by the launch.

534. In time of peace the necessity of conforming to customs and quarantine regulations will delay disembarkation. The light baggage should, if practicable, be examined while the troops are on board, and, together with the camp equipage, should be cleared so as to reach the troops on the day they march to camp.

TRANSPORTATION OF ANIMALS AT SEA.

535. For the transportation of animals at sea the Transport Service should be equipped with large steamers provided with bilge keels. The interior fittings should be of the most substantial character, the construction and arrangement of the stalls being in accordance with approved plans evolved by experience.

536. Before loading animals the quartermaster in charge should satisfy himself that ample forage and water is provided for the voyage; that the provisions for electric lighting and for ventilation are satisfactory; that there is a sufficient number of attendants; that adequate veterinary supplies, disinfectants, and appliances for feeding, watering, grooming, and policing are on board, and that the ship is clean and sanitary.

537. All animals suffering from infectious or contagious disease and those which are weak or very old should be separated as unfit for embarkation.

538. For short voyages and immediate service upon landing the animals may be shod; but when the voyage is to occupy a month or more, the shoes should be removed, as the growth of the hoofs would necessitate reshoeing anyway immediately after landing.

539. It is not desirable that animals be embarked in high condition; their forage should be reduced, and the day before embarkation they should be fed bran mash.

They should not be watered or fed for several hours before embarkation.

EMBARKATION.

540. With the transport at the wharf the animals are led on board on ramps, or they are hoisted by means of slings or flying stalls. The ramps, decks, etc., should be covered with sawdust or litter; the ramps should have closed sides 5 feet high.

541. The animals should be led in quietly, without interruption, starting with a gentle animal. Those refusing the ramp may be blindfolded, and, if necessary, be assisted by a rope passed in rear of the haunches.

On reaching the stable deck the animals will at once be led to the farthest vacant stalls, where a feed of hay should be ready for them.

542. When animals are slung, all the apparatus will be carefully inspected beforehand and great care will be taken to prevent injury in hoisting or lowering.

Two guys will be fastened to the halter ring, one to be held on the wharf and the other on board.

When all is ready and the word "hoist away" is given, the animals should be hoisted steadily and rapidly to the required height and then carefully swung and lowered. Two or more men should be stationed at the hatchway and between decks to guide the animals when being lowered and to receive them and prevent their plunging.

543. When the transport can not come alongside a wharf, the animals must be conveyed to it in lighters or flatboats and hoisted or led on board. To reach the lighter from shore, gangways or temporary platforms may be used.

CARE OF ANIMALS ON BOARD.

544. *Personnel.*—For the whole cargo of animals there should be 1 senior noncommissioned officer, 3 cooks, 1 forage master, 1 veterinarian and 1 assistant, and for each 100 animals there should be 1 noncommissioned officer and 15 privates. After making details for guard, kitchen police, and mess attendants, and the usual allowance for sickness, every private will be required to care for about 10 animals. When the personnel consists of civilian employees, a train master, wagon masters and civilian teamsters take the places of enlisted men.

545. *Assignment.*—The ship will be divided into sections to each of which a noncommissioned officer with a squad will be assigned. The stalls should be numbered and the limits of the sections accurately defined so that each noncommissioned officer may know exactly for what animals and space he is responsible.

The noncommissioned officer in charge of a squad makes his own details, calls the roll, keeps a forage record, and notes on the bulletin board the names of men on guard and the number of horses sick.

The senior noncommissioned officer exercises a general supervision, keeps the forage accounts, makes out the morning report, and is responsible for cleanliness and good order.

546. *Feeding.*—For the first day or two at sea the full ration of hay should be fed, but no grain. After that half a ration of oats should be given daily, and bran mashes about twice a week. Extra hay

may be fed and a larger allowance of grain given to animals needing it. Salt may be fed in the bran mash or otherwise.

547. Watering.—A supply of pure drinking water of not less than 10 gallons per day for each animal must be provided. Animals will be watered three times a day—before being fed in the morning, at noon, and before afternoon stables. Watering will be from buckets or zinc tubs filled through a hose provided with a stopcock at the end, thus avoiding waste.

548. Grooming and stable police.—The animals should be thoroughly groomed at afternoon stables, particular attention being given to hand rubbing the legs and sponging out the eyes, nostrils, and dock.

549. Stable orderlies at the rate of one for each 50 animals will be constantly on duty and will remove all manure at once. After breakfast each day the ship will be thoroughly policed. All refuse hay will be collected in bags or baskets and thrown overboard. With the aid of a hose the decks will then be scrubbed and washed down. Vinegar will be applied once a day to the feed troughs with a brush, and disinfectants sprinkled about the stall and in the passageways.

550. Sick animals.—A few large stalls near hatchways should be reserved for sick animals. As forage is fed, other space will become available for ailing animals. The veterinary surgeon and his assistant will take charge of the treatment. In fairly smooth weather it will be better to supply sufficient litter for the animal to lie down than to trice him up in a sling.

551. Inspection.—When the morning's work is completed the ship should be thoroughly inspected. The stalls and passageways must be clean and the scuppers clear. The commanders of squads must be held to strict responsibility for the condition of the animals and space assigned to them.

The veterinary surgeon will inspect at least once a day and keep a sharp lookout for signs of infectious or contagious diseases. He will make recommendations concerning necessary sanitary measures to the officer in charge.

552. Mess.—The detachment may be fed by the ship's cook, or it may do its own cooking in the galley provided for that purpose. In either case the mess should be carefully looked after to see that the galley and surroundings are kept clean, and that a sufficient quantity and variety of food is properly cooked and served.

553. Miscellaneous.—Each stall will be provided with two halter chains, one fastened to each front stanchion, with end and center snaps, so that they can be used either long or short, as desired.

The animals will at all times be fastened in the stall by chain from each stanchion, the long attachment being used only during rough weather or while they are feeding from the deck.

During a storm, or on the occurrence of fire, as many men as can be spared should stand at the horses' heads.

If troops travel with their horses, each unit will look after its own animals.

DISEMBARKATION.

554. With the transport alongside a wharf the animals may be led up on ramps and down a gangway, or hoisted and lowered by means of slings or the flying stall, the latter being preferred.

A bed of sawdust, soft earth, or straw should be prepared to prevent injury to the knees of animals which may fall upon landing. Animals will be received by men on shore, and when a sufficient number has landed they will be led to the stables, picket lines, or corrals provided.

555. When it is necessary to lower horses into lighters the greatest care must be taken, especially if there is a swell, to prevent injury. The horse should be received by several careful men on a bed of straw, and the tackle must be slacked down rapidly or let go altogether as soon as he strikes the boat in order that he may gain his footing.

In smooth water it is best to construct a ramp from the ship to the lighter. This will facilitate unloading and save risk of injury.

556. Animals may be landed by swimming, being lowered into the water by means of a sling or the flying stall, or they may be led to a port and forced into the water. The latter method, when practicable, is safer and quicker.

A gang plank constructed of boards about 16 feet long, the cross-pieces being nailed on the under side, is poised on the edge of the port. The animal is led to the port, a light rope is tossed up from a boat below and passed through the halter ring; the animal is then forced into the water by lifting up the interior end of the plank. When he begins to swim he is pulled up close to the boat, care being taken not to hold his head too high for swimming. At the beach the rope is given to a man who wades out from shore and takes charge of the animal.

557. Animals landed after a long voyage should not be used for several days. By means of ample rest, gentle exercise, good grooming and feeding, they should be recuperated before requiring work of them, being in the meantime reshod if necessary.

(D) CONVOYS.

558. The means of transportation attached to a military force and following its movements more or less closely is protected by the presence of the troops and by train guards. The groups of trains which move by regular stages at a greater distance in rear of an army, and which generally serve to supply the temporary magazines, although at times they may proceed direct to the troops, require special escorts, and are called convoys. The term "convoy" may apply to the trains or to their military escort, but usually includes the two.

The most general classification is into *convoys by land* and *convoys by water*.

559. Transportation on land is effected by railroad trains, wagon trains, and pack trains of various kinds. The general development of railroads has diminished the number of large convoys of wagons necessary in campaign, and the length of their haul. Pack transportation is indispensable in mountainous country and generally in regions devoid of roads; its use in convoys, however, is limited. Under favorable conditions traction engines may be used on the line of communications. The typical form of convoy, however, continues to be composed of wagons drawn by animals, and the general principles governing its march and protection will apply to other kinds of transportation and to mixed convoys.

CONVOYS OF WAGONS.

560. *Organization.*—The means of transportation may consist of regularly organized wagon trains of the Army, with enlisted or civilian personnel, of hired trains and drivers, or of teams and drivers of the invaded country pressed into service. Careful organization and efficient administration are of prime importance, especially with civilian teams and personnel.

561. As the vulnerability and difficulty of controlling a convoy increases rapidly with its length, it should, as a rule, not contain more than 100 wagons, which would take up about 1 mile of road.

562. A staff officer, generally a quartermaster, will be placed in charge of the convoy and have such assistants assigned to him as may be available. The convoy will be divided into convenient sections of from 20 to 30 wagons, each section being in charge of a reliable noncommissioned officer or wagonmaster. There should be 4 extra teamsters, and at least 1 spare wagon and 1 spare team to each section. All the wagons carry spare parts, tools, and axle grease.

563. The organization of each section should be similar to that of

a wagon train (see paragraph 25); in addition, there should be blacksmiths, harness makers, and clerks for the convoy. Officers and noncommissioned officers should be mounted.

564. A police guard of at least one squad should be assigned to each section of the train to preserve order, protect property, render assistance in case of accidents, and to take part in the defense. With hired or impressed transportation a stronger guard will be required.

Frequent inspection and constant attention are requisite in order to maintain the efficiency of all parts of the convoy.

565. *March of the convoy.*—The convoy will march with a distance of about 25 yards between sections and about 2 yards between wagons, progressing at the rate of from 2 to $2\frac{1}{2}$ miles per hour, including halts. The march will be similar to that of a body of troops, except for breathing spells in ascending long slopes, and possible delays to lock wheels on steep descents. Long halts should be avoided; short halts to be not less than ten minutes every two hours. The slowest teams will be placed in the lead.

566. The wagons must not be overloaded; all unauthorized articles will be removed. Broken wagons will be dragged off the road and the stores loaded on a spare wagon, or distributed among the nearer wagons; if necessary they may displace less valuable stores or be destroyed.

567. *Camping.*—The selection of a camp will be based on considerations of safety, space for parking, and supply of wood, water, and grass. Cross-roads increase freedom of movement; vicinity of towns or villages is generally undesirable. Wire fences inclosing a field are advantageous.

Herding should not be undertaken unless absence of danger permits, or lack of forage demands it.

568. Upon going into camp, or during long halts, the convoy should be parked, the nature of the formation depending upon the proximity and character of the enemy and the amount of ground available.

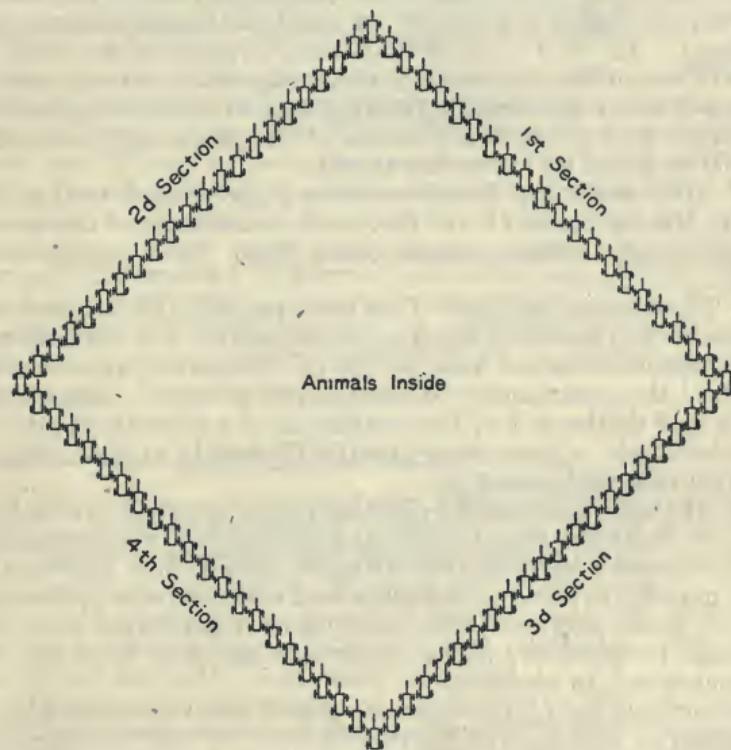
569. When the enemy is known to be distant the convoy will usually be parked in column of sections or half sections, with distances of about 20 yards between subdivisions and intervals of 6 to 8 yards between wagons. A compact formation is secured by placing the wagons axle to axle and tying the animals to picket lines in front of the wagons.

570. For purposes of defense the wagons may be placed in two lines facing each other, or so as to form a square, oval, or circle, with the poles toward the inside, the inclosure thus formed sheltering to a considerable extent the men and animals on the inside.

When there is sufficient time, wire entanglements should be constructed and shelter trenches dug outside the corral.

The diamond-shaped corral, as shown in diagram, is recommended for use in emergencies, for it can be rapidly formed and easily take the road again. The animals of the first two sections should be unhitched and placed inside. Openings may be left where deemed suitable.

When the nature of the ground permits, the teams of the first two sections may be required to countermarch before taking their places, thus obviating the necessity of unhitching.



CONVOYS

FORMATION OF DIAMOND-SHAPED CORRAL

SCALE: 1 INCH=120 FEET

571. The strength of the escort will depend upon the importance and size of the convoy, the risks it runs, the nature of the country, the length of the journey, etc. A convoy containing powder requires a stronger escort than any other, for it is necessary to prevent the enemy from firing into it.

572. As a rule, escorts of convoys should be composed of infantry, with enough cavalry for scouting and communication, and some engineers. The proportion of cavalry varies, being greater in open than in close country. Under average conditions a convoy of 100 wagons would require an escort of about 500 infantry and 50 cavalry.

573. The senior line officer of the troops commands the whole convoy; he may assign the second in rank to immediate command of the escort. He will consult with and, if practicable, defer to the wishes of the officer in charge of the transportation in all that relates to hours of starting, marches, parking of the trains, and guards to preserve order and prevent accidents. Officers casually with the convoy will exercise no authority therein.

574. After assigning detachments as police guard to the different sections, the commander will divide the remainder of the escort into advance cavalry, advance guard, main body, flank guards, and rear guard.

575. The advance cavalry.—This body precedes the convoy by from 3 to 5 miles and scouts to the front and flanks. The necessary guides and interpreters should march with it. Important information will be sent to the commander of the convoy at once. Examination of bridges and defiles and of the country in the vicinity should be specially thorough; a temporary guard will remain at such points until the advance guard comes up.

576. The advance guard.—The advance guard, consisting principally of infantry, marches about 1 mile ahead of the convoy. Its duty is to search carefully the villages, woods, and defiles near the line of march; to remove obstacles and make repairs in the road; to drive off small parties of the enemy and delay larger ones, but not to engage in pursuit. Some cavalry is assigned to it for duty as messengers and in scouting.

The commander of the advance guard will report suitable places for halting or parking the convoy.

The leading section of the trains should never enter a defile until the advance guard is in possession of the farther end.

The advance guard should be continually in communication with the main body of the escort by means of connecting groups.

577. *The main body.*—The greater part of the escort is kept together at the most important point, which may be near the head, in rear, or opposite the center, the latter being usually the most suitable position. Its duty is to cover the march of the convoy and to fight the enemy at the principal point of attack. It will generally be necessary to place a section of infantry at the head and another at the end of the convoy for its immediate protection.

578. *Flank guards.*—For protection against surprise small groups of cavalry will, if practicable, march at a distance of at least half a mile on both sides of the road. When the flanks are actually threatened, detachments from the main body will be sent in advance to covering positions on the right or left of the road, with orders to remain until the whole convoy has passed.

579. *Rear guards.*—The rear guard marches a short distance in rear of the wagon column, keeping a sharp lookout and being at all times ready to fight. Its strength should ordinarily be about $\frac{1}{6}$ of the escort and it should have the usual rear-guard formation. In addition to its other duties, it assists wagons that have fallen to the rear, and aids in transferring the loads of broken-down vehicles to reserve wagons. If the enemy attacks the convoy from the rear the rear guard endeavors to keep him at sufficient distance to prevent his firing on the convoy. It fights the enemy from defensive positions and if necessary, delays his progress by obstacles and demolitions. It should remain in touch with the main body of the escort by means of mounted messengers.

DEFENSE OF THE CONVOY.

580. If the various covering detachments perform their duties it will be impossible to surprise a convoy. The object of the commander will be to prevent the enemy from occupying, or to drive him from, positions permitting effective fire on the trains.

A check at the head stops the whole convoy, and the excitement caused by the enemy's fire may throw it into confusion. The flanks of a convoy are the parts most easily attacked.

581. As soon as the presence of an enemy is reported, all the teams will be ordered to close up; if the road is wide enough, the wagons will be formed in double column, and the march will be continued in the most orderly manner possible.

582. The commander should not seek a fight, but if the enemy holds a commanding position or a defile on the line of march, it will be necessary to dislodge him. The commander of the escort will

proceed to the attack with a large part of his force, but should not engage in a pursuit, which would involve the double risk of being caught in an ambuscade and of leaving the convoy without adequate protection. The convoy, halted during the combat, will resume its march as soon as the enemy has been driven off,

583. If the convoy be menaced by small hostile parties it will continue its march under the protection of the escort. Persons not in uniform attacking a convoy should be severely punished, in accordance with the laws of war.

584. The advance cavalry should report the presence of superior bodies of the enemy with the utmost dispatch, in order to give the commanding officer time to turn the convoy off on another road, to park it, or to start it in retreat if necessary.

585. Should the advance of superior forces of the enemy render it necessary to form corral, skirmishers will be sent out at once to delay the attack and gain time for the formation. Several well-mounted and reliable couriers will be dispatched to apprise the nearest troops of the situation. The commander selects good defensive positions at some distance from the convoy, intrenches if possible, and prepares for a stubborn resistance. Should the enemy be repulsed, his retreat will be carefully verified before breaking corral.

586. In case the fight takes an unfavorable turn and reinforcements can not arrive in time to change the situation, the commanding officer will try to escape with part of the train. If this be impracticable and the greater part of his force is disabled, he should try to cut his way out with the teams, after setting fire to the wagons.

ATTACK OF A CONVOY.

587. The most favorable time for attacking a convoy is when it is passing through a wood, a defile, or over a bridge; when it is going around a sharp bend in the road; when ascending or descending difficult slopes or passing over bad pieces of road; when the convoy is beginning to form corral; when the teams are being watered; or, whenever the conditions are such that the escort can not take rapid measures for defense. The assailant should endeavor to surprise the convoy while it is in a difficult situation.

588. The attacking force will endeavor to bring the convoy to a halt, throw it into confusion and make the principal attack from an unexpected quarter. The fire of artillery or machine guns will, if possible, be brought to bear on the convoy. In case of success the parts of the convoy that can not be carried off will be destroyed.

CONVOYS BY RAIL.

589. When the protection afforded by the troops of the line of communications is not deemed sufficient, the train to be convoyed will be preceded by a pioneer train consisting of some freight cars in front, and coaches with a working party and a portion of the escort in rear of the locomotive. The working party will be provided with the necessary tools and supplies for making repairs. The platform car in front of the locomotive may be protected by shields of boiler iron or by sand bags. The train to be guarded follows at a distance of 1 or 2 miles in rear, with the remainder of the escort distributed on the train.

CONVOYS OF PRISONERS.

590. In addition to an escort to oppose possible attempts at rescue, a guard of about 10 infantry soldiers and several mounted men is required for every group of 100 prisoners. The captives will be formed into companies and marched in column; their officers will march separately. Prisoners will be treated kindly, but must understand that attempt to escape will draw fire. If the convoy is attacked, the prisoners will be ordered to lie down. At night they will be placed in large, well-lighted buildings or inclosures.

CONVOYS BY WATER.

591. At sea, on the Great Lakes, and on large rivers, inlets, and estuaries convoy duty will be performed by the Navy. Water transportation on lines of communications in the interior derives its security principally from the presence of the forces in the field. For protection against guerrillas and raiding parties a steamboat of shallow draft and provided with machine guns and shelter against rifle fire should carry part of the escort and precede the transports. Means for disembarking the escort rapidly should be provided in order that hostile parties holding intrenched positions may be dislodged by a landing force. In the case of narrow streams or canals lined with woods or other good cover it may be necessary to have the escort march on both banks and clear the country as it advances.

ARTICLE X.

SHELTER.

GENERAL CONSIDERATIONS.

592. Lack of sufficient rest not only renders troops unfit for hard work, but also diminishes their power of resisting disease. It is therefore the duty of all commanders to secure for their troops, as far as practicable, the nightly rest to which they are accustomed, to avoid unnecessary night marches, alarms in camp, and dissipation, and to permit troops who have been on night duty to make up their loss of sleep.

593. In order to rest well troops must have shelter. Exposure to bad weather makes greater inroads on the numerical strength of troops than a severe engagement. Neglected animals suffer even more, and their lack of condition will soon cripple a command.

594. The kind and amount of shelter for troops will depend upon the distance of the enemy, the length of stay in one place, the means available, and the season of the year.

In *cantonments* the troops occupy buildings in towns or villages or are sheltered in huts erected on their camp grounds. The term implies a considerable length of stay.

In time of peace, on the occasion of local insurrection, riot, or disorder, public buildings will be used for the temporary shelter of troops only in case of great emergency; private buildings will not be entered by troops without permission, except to prevent destruction or to protect life.

In time of war temporary use may be made of public buildings in our own country when absolutely necessary, for example, in the care of the wounded; but as long as patriotic communities or individuals offer the use of buildings, or when they can be rented at reasonable rates, seizure should not be resorted to, except in response to the imperative demands of humanity. In the enemy's country public and private buildings are available for the use of troops and may be converted into cantonments. However, families should not be removed from their residences unless it is unavoidable.

Cantonments often develop through improvement of camps, huts or temporary buildings taking the place of worn-out tents. During suspension of hostilities awaiting negotiations and ratification of treaties of peace, in the occupation of hostile or insurgent territory, and at sieges, cantonments may be utilized with advantage in sheltering troops, especially during cold and wet weather.

Billeting is the assignment of officers and men to public or private buildings in towns or villages on or near the line of march. The stay is for one night only, or at most for a few days. This method of sheltering troops in private houses is never resorted to except in the enemy's country, under circumstances when it is impracticable to carry tents or to pitch them, or when the protection of shelter tents would be inadequate. The inhabitants should not be deprived of bedrooms or kitchens.

In a *camp* the troops are sheltered under canvas.

In a *bivouac* the men rest on the ground without shelter.

SHELTER BEFORE BEGINNING OPERATIONS.

595. When war is imminent, and as a preparation to entering into campaign, the regular troops and the regiments of volunteers mustered into service, will be assembled at convenient and suitable places and be formed into brigades, divisions, and army corps.

As the troops arrive at the place of assembly they will be placed under canvas or sheltered in portable buildings, huts, or temporary barracks. All danger from an enemy being precluded, the principal endeavor should be to provide for the comfort, health, and instruction of men and animals. These objects can best be attained in carefully selected and properly managed camps or cantonments.

596. The largest command usually formed for administrative purposes at this stage is the army corps. Districts which are suitable for the camps or cantonments of army corps should be selected by the General Staff in time of peace, after securing the report of experts on the character of the water supply and the salubrity of the country. The following requirements are essential:

(a) The space should be ample to allow for the camping of troops at wide intervals, the location of depots, corrals, parks, and hospitals, and the reservation of large grounds for the exercise and instruction of troops.

(b) There should be an abundance of open, rolling country suitable for the establishment of well-drained camps.

(c) The water supply should be excellent and abundant. Each brigade, if possible, each regiment, should have an independent

water supply which can not be contaminated by drainage from other camps.

(d) Several railroads with ample sidings, loading platforms and switching facilities should pass through the district or be within easy reach.

(e) There should be good wagon roads from the railroad stations to various parts of the district so that the camps may be conveniently accessible.

597. All the arrangements for the accommodation of troops should be completed before their arrival. Tents should be pitched and aligned, kitchens equipped, water supply arranged, and fuel delivered. Latrines require special attention; the completeness of their equipment will depend upon the length of time they are to be used.

Staff officers will be ordered to meet all troops upon arrival at the railroad station and personally conduct them to their camps.

598. Headquarters of the command should be centrally located, with mail, telegraph, and telephone facilities.

Similarly, division, brigade, and minor independent headquarters should be centrally located with respect to their troops and connected with general headquarters by wire.

Depots and storehouses should be placed at railroad sidings. No part of camp should be more than 5 miles from the depots.

Hospitals should not be far from the railroad station, in order that their evacuation by rail may be facilitated. As a rule the mobile field hospitals should not be set up at this time, although their personnel may be utilized in the care of the sick in local hospitals.

The location of troops in camps should correspond to their organization—that is, regiments of the same brigade, and brigades of the same division should adjoin each other, or at least not be separated by impassable obstacles. Cavalry and artillery are usually at somewhat greater distance from headquarters than the infantry; corrals, wagon trains, and pack trains are placed so as not to interfere with the comfort and cleanliness of other troops.

599. As the time for operations approaches, the troops will be drawn from the preparatory camps and assembled into armies. Tactical considerations will now demand a closer degree of concentration, and control the location of camps. Cavalry divisions should be about a day's march in advance; the principal lines of approach should be held, and outposts established where necessary. The army corps should be placed along the general line to be held in case of attack.

The troops will be sheltered in the tents forming part of their equipment. In case tents are not available, shelter tents will be

used and additional shelter may be improvised, depending upon the probable length of stay and the means available.

SHELTER DURING OPERATIONS.

600. On the march.—On ordinary marches in time of peace the troops usually put up tents after each day's march. During active operations in contact with the enemy the wagons carrying the tents will often be not accessible. In our own country the troops will in such cases be obliged to use their shelter tents or bivouac. In severe weather, menacing the health of the troops, necessity may require that large public and private buildings be utilized for shelter. The civil authorities should be consulted and satisfactory arrangements made before arrival of the troops.

In the enemy's country public buildings are seized without other hesitation than precaution against epidemic diseases; private buildings may be utilized to the extent necessary, beginning with those that have been deserted or are empty. Staff officers and one representative officer from each battalion, squadron, or battery, accompanied by some noncommissioned officers and orderlies will, when practicable, precede the column on days when the use of buildings as shelter is contemplated. The senior staff officer confers with such civil authority as may be present and makes an equitable division of the accommodations available into distinct sections and turns them over to the representatives; the latter distribute the quarters to their troops and furnish the necessary guides.

601. Unless the country is densely inhabited, or the force in march is small, shelter of this character will usually be inadequate, and some of the troops will be forced to use shelter tents or bivouac. However, villages and large farms often afford facilities such as wells and cisterns, bakeries, blacksmith shops, material for repairs, fuel, and forage, which contribute to the comfort of troops; it will therefore be of advantage to camp or bivouac near them.

602. In contact with the enemy.—During a lull in an engagement, or in case hostilities are suspended at nightfall without having arrived at a definite decision, the troops will bivouac in line of battle. As soon as outposts are established after a battle the commanders will decide whether the troops of the main body shall be permitted to pitch shelter tents. In bad weather the outposts also may use shelter tents when they can be hidden from view of the enemy.

During prolonged suspension of hostilities tents may be brought up, fresh clothing and supplies issued, and the troops sheltered with a degree of comfort, depending upon circumstances.

603. *At sieges.*—On account of the long range of modern fortress artillery the camps or cantonments of the main body of the investing force can not be placed much nearer than 5 miles from the enemy's works, unless good cover is available. In order to guard against sorties a large proportion of the troops will be on outpost duty; good shelter in which to recuperate from this arduous work is very desirable.

The shelter at the outposts may be left standing for use from day to day; but when troops have completed their tour of outpost duty they should be permitted to return to their own camps with the main body.

Because of the danger of epidemics in the necessarily crowded camps or cantonments of the besiegers, the water supply and sanitary arrangements will require the most careful attention.

CAMPS.

SELECTION OF SITE.

604. On account of tactical considerations there will often be but little choice in selecting a site for a camp in time of war. When a great battle is impending the troops may have to camp many nights on ground which is objectionable from a sanitary point of view. However, when the enemy is more than two marches distant it will nearly always be possible to give weight to sanitary considerations.

605. When there are no tactical questions involved, and the camp is to be occupied for some time, a great responsibility rests upon the officers selecting a site. The most scrupulous cleanliness on the part of the troops can not overcome the disadvantages of a bad site. Through no fault of its own a regiment thus situated may suffer greater casualties than it would in a long campaign.

The senior medical officer of the command will be required to report on the quality of the water and healthfulness of the proposed site.

606. When selection is not restricted each camp site should fulfill the following conditions:

(a) The ground should be large enough to accommodate the command without crowding.

(b) The water supply should be abundant, of good quality, and conveniently accessible.

(c) The drainage should be so good that after a rain there will be

no stagnant pools within 300 yards of camp. The crest of a low ridge with gentle slopes is favorable for drainage.

(d) There should be good roads to the camp and good facilities for communication within it. On account of the dust and noise it is not desirable to place a camp on or near a main road.

(e) Wood, grass, forage, and supplies must be at hand or easily obtainable.

607. Old camp grounds and the vicinity of cemeteries should be avoided.

Marshy ground and the neighborhood of stagnant water are objectionable on account of the damp atmosphere and the annoyance and infection of mosquitoes.

The high banks of rivers are generally good for camping purposes, provided no marshes are near.

A slope to the south, with woods or brush to break the force of winds, is an advantage in the cold season.

Closely cropped turf, with sandy or gravelly subsoil, is the best; clay soil is damp.

In the hot summer months woods on high ground, free from underbrush and thin enough for grass to grow freely, may form a comfortable and healthy camp.

The ground near the foot of a hill range nearly always has a damp subsoil, remains muddy for a long time, and it is not suited for camping purposes unless separated from higher ground by a ravine.

Thick forests, dense vegetation, made ground, alluvial soil, punch-bowl depressions, inclosed ravines, and dry beds of streams should be avoided.

608. On a march the requirements for a camp site will be complied with as far as practicable. Convenient access to water and supplies is much appreciated at the end of a tiresome march, and as the stay is for one night only, the usual distances and intervals may be reduced.

It is nearly always advisable to camp on the far side of a stream or of a dry ravine on the line of march.

609. Unless otherwise required by military necessity, the rule is to place not more than one brigade in a camp.

On account of the latrines and the discomfort of other troops passing through camp, it is undesirable to select a site so that one body of troops will camp behind another; when it is necessary to do so, a space of not less than 200 yards should separate them.

610. When practicable the camp site should be changed every two or three weeks. This is an additional precaution against epi-

demics and affords a change of scene. When the camp ground becomes cut up and dusty, or when grazing and fuel grow scarce, a change will be desirable.

FORM OF THE CAMP.

611. When not in presence of the enemy, battalions and squadrons usually camp in column of companies or troops at convenient distances.

With shelter tents the arrangement for each company will be in two lines, facing each other, with a distance of 15 to 20 yards between the lines; this space forms the company street. A company of infantry thus occupies a space of 20 to 25 yards in depth.

The picket lines of troops of cavalry will be about 40 yards apart, those of batteries about 100 yards. The shelter tents, all facing toward the head of the column, are placed in one row, about 15 yards in rear of the picket lines, or in two rows with 5 yards between rows.

With common tents, or with wall tents, the camp is usually formed in two lines for each company, and in one or two lines for troops or batteries.

With conical wall tents a single row is the most convenient form for each company, troop, and battery.

The tents of the officers and of the noncommissioned staff officers, and the kitchens and latrines for officers and men, will, whatever the kind of tents used, be placed approximately as shown in the diagrams.

612. The positions of the color line, guard tents, field hospital, officers' horses (of infantry), and the transportation are prescribed by the commanding officer. In the cavalry the troop wagons may be placed at the ends of the picket lines when the camp is for only one night.

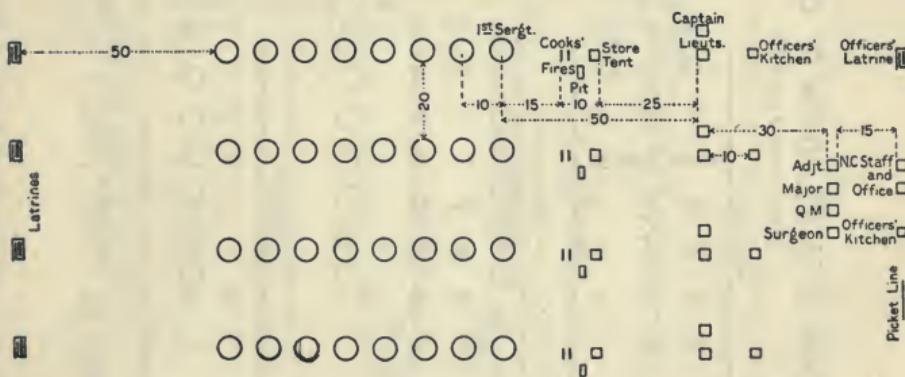
613. While it is desirable to occupy ample space in camps, the form and size of the ground available will often require a modification of distances and intervals and other changes, all of which will be regulated by the commanding officer. When ample ground is available the picket lines for cavalry may be placed on the flank, between the latrines and the men's tents.

614. The headquarters of regiments and brigades usually camp opposite the center of these units. In larger commands the headquarters should be centrally located.

CAMP OF A BATTALION OF INFANTRY

DISTANCES IN YARDS SCALE: 1 INCH=200 FEET

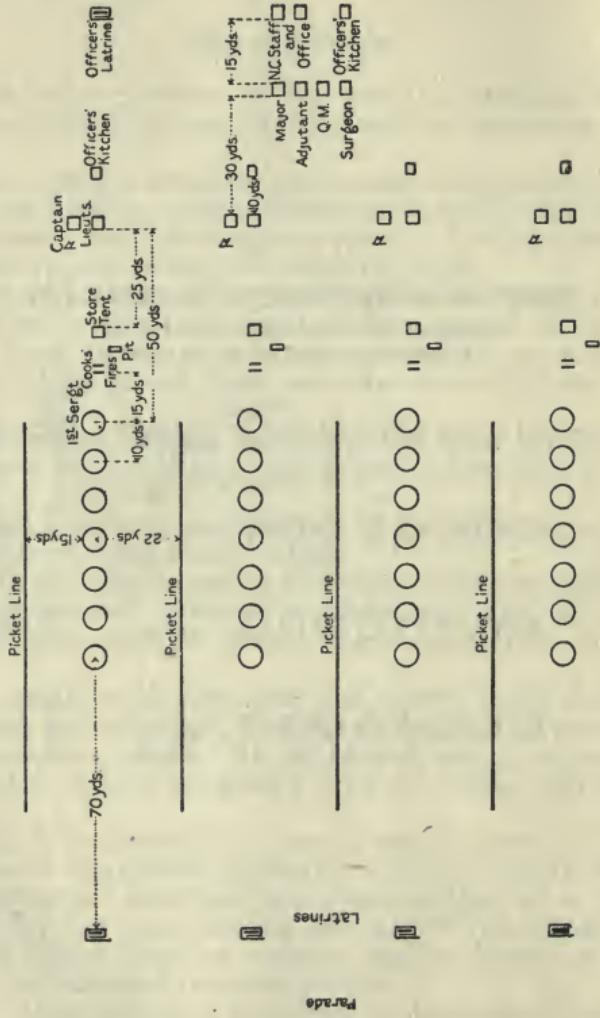
DIMENSIONS OF CAMP, 110 BY 250 YARDS



SHELTER.

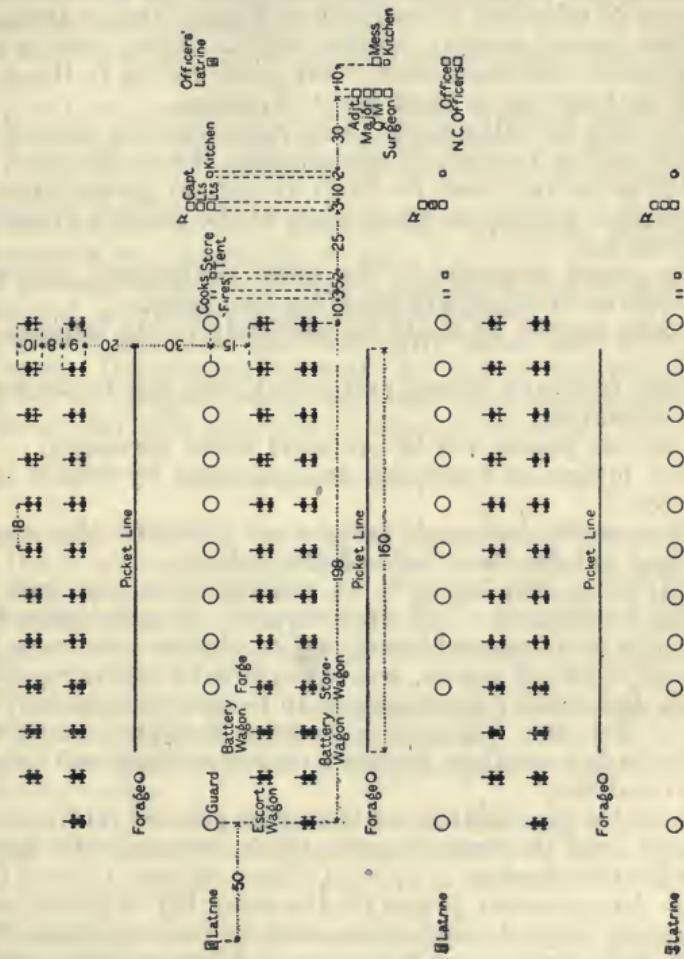
CAMP OF A SQUADRON OF CAVALRY

SCAI E: 1 INCH = 200 FEET



CAMP OF A BATTALION OF ARTILLERY

SCALE. 1 INCH=100 YARDS
DISTANCES IN YARDS. DIMENSIONS OF CAMP. 360 BY 270 YARDS



GOING INTO CAMP.

615. A staff officer, with such assistants and orderlies as may be required, should precede the command by several hours for the purpose of selecting a camp site or asking higher authority to point out the ground already decided upon. After posting men to mark the ground, the remainder of the party return to the command and guide its fractions to their allotted places.

616. The infantry stack their arms on the ground they are to occupy and remove their equipments; the cavalry and artillery unsaddle or unhitch and tie their horses to picket lines. The tents are pitched as soon as practicable, in the manner prescribed in Drill Regulations.

The guard proceeds to the place designated, and after posting sentinels as directed will pitch its own tents.

Details should be made immediately to dig latrines and kitchen pits.

Tents, company streets, and picket lines will be ditched if there be time available.

Watering places will be prepared when necessary.

Fuel, forage, and supplies are procured by details of men when required.

When straw, leaves, or boughs are available the men should be required to raise their beds off the ground.

617. When the camp is to remain for some time the ground should be cleared of all underbrush. Rough chairs, benches, and tables, bake ovens and filters, walks, shades over mess tables, bathing and washing places, and wind-breaks are camping expedients which are readily constructed, and contribute greatly to the comfort of the men. Watering troughs, shelters in cold weather and shades in hot weather, facilitate care of animals and help to preserve their condition.

In winter quarters the tents may be pitched on frames, bunks constructed, and the tents floored; brick or stone foundations may be built for tent stoves.

618. In campaign, places for the assembly of battalions and squadrons, or of larger bodies, to be used in case of alarm by day or by night, and the positions to be occupied by the various units, together with the routes to be followed in proceeding thereto, should all be designated as soon as the camp is formed.

CAMP DUTIES.

619 In standing camps the list of calls and routine duties correspond closely to the usual practice in garrison. On the march and in the presence of the enemy these duties should be limited to what is considered absolutely necessary.

Guard duty is performed in the manner prescribed in the Manual of Guard Duty.

A camp should be thoroughly policed every morning after breakfast, all sweepings and refuse matter being carried off and burned.

The tent walls should be raised and the bedding and clothing aired daily, weather permitting.

When tent floors rest on the ground, they should be raised frequently to permit a free circulation of air.

Watering, feeding, and grooming of animals will take place at regular hours and under the supervision of officers.

The arms and equipments are habitually taken care of in the tents of the men. Horse equipments of the cavalry also are placed in the tents, but in camps of some duration they may be arranged on racks and covered with ponchos or waterproof coats.

WATER SUPPLY.

620. Upon arrival in camp the commander will designate places for drawing the drinking and cooking water, for watering animals, for bathing, and for washing clothing. The first should be highest upstream, and the others in the order named. Guards will at once be placed to prevent pollution and enforce proper use of the water supply.

When several commands are encamped along the same stream this matter will be regulated by the senior officer.

If the stream be small it will be of advantage to construct reservoirs by building dams.

Small springs may be dug out and lined with stones, brick, or empty barrels. Surface drainage is kept out by a curb of clay. Animals will in such cases generally have to be watered from troughs or buckets.

Water not pronounced safe by the medical officer should be boiled twenty minutes, then cooled and aerated. A company will require at least two barrels of water daily for drinking purposes. The necessary vessels for boiling and cooling the water having been provided, a man should be specially detailed to attend to the water supply of the company.

V
KITCHENS.

621. On going into camp, kitchens should be promptly established at or near the prescribed places. Liquid refuse will be thrown into pits. Solid matter may be buried in trenches, but in permanent camps it should be collected in covered barrels or boxes and removed by police parties.

When fuel is plentiful, a trench about 1 foot deep may be dug to contain the fire. Green poles, or sections of iron pipe resting on uprights of suitable height, support the camp kettles.

If fuel be scarce, dig a trench somewhat narrower than the diameter of a camp kettle. The kettles rest on the ground, and the intervening spaces are covered with stones or clay, thus forming a sort of flue. The draft may be increased by building a chimney of sod or stones at the leeward end and by widening the windward end. The trench should have a slight fall away from the chimney for drainage and to improve draft. Four such trenches radiating from a common chimney will afford good draft whatever the direction of the wind may be.

Officers must insist upon scrupulous cleanliness of cooking utensils and mess tables. The cooks will be required to be clean in their persons and neat in appearance, and the ground about the kitchens and messing places will at all times be kept free from refuse and filth of every kind.

In permanent camps wire screens should be provided to protect food from flies.

OVENS.

622. When portable ovens are not available, improvised ovens take their places. They may be constructed of brick or stone, and covered with earth to better retain the heat. If these materials are not available, a simple method is to lay an empty barrel on its side in a depression, knock out one head, and plaster the barrel over with 6 to 8 inches of clay, and then cover with an equal thickness of earth. A flue of clay is constructed at the closed end of the barrel, which is then burned out, leaving an oven of baked clay.

When clay banks are conveniently located ovens may be excavated therein and used at once.

V
LATRINES.

623. At the end of a march latrines should be constructed as soon as tools become available. They will in all cases be located on the

opposite side of the camp from the kitchens. They should be near the companies and so placed that drainage or overflow can not pollute the water supply.

When the camp is for one night only a shallow trench will suffice. In more permanent camps the trench should be about 2 feet wide, 6 feet deep, and 15 feet long. Seats and guard rails of poles or other material should be provided, and the place screened by brush, wattling, or old tent flies. As soon as filled within 2 feet of the surface such latrines will be discarded and completely filled with earth. All latrines should be filled up before marching.

In cold weather the contents of latrines should be covered once a day with lime, ashes, or earth. In warm weather deposits should be covered as soon as made, and it may be necessary to post a sentinel to enforce this order, or to detail a man to do the work.

Another satisfactory method is to burn out the trenches daily with leaves or straw sprinkled with kerosene.

In permanent camps and cantonments temporary outhouses will generally be constructed of boards and so arranged as to keep the pits dark, or a system using zinc-lined troughs and odorless excavators may be adopted. Urine tubs should be placed in each company street at night and emptied immediately after reveille.

BIVOACS.

624. When troops remain in deployed formation after a battle, awaiting resumption of hostilities, they will generally bivouac on or near the position they occupy. Reserves required to remain in a state of instant readiness may bivouac in column with a flank to the front. In the former case the officers bivouac in rear of the center of their units; in the latter, they bivouac on the flank away from the direction of the enemy.

625. In some cases it may be difficult to put up shelter tents on account of lack of ground; for example, in marshy country or jungle the troops may be forced to bivouac on the roads, and when villages are crowded some of the troops may have to bivouac on the sheltered side of buildings. On the other hand, in fine weather in midsummer, or in the dry season in the Tropics, shelter tents may be dispensed with as a matter of choice.

626. From a tactical point of view bivouacs are very convenient, but on account of danger to the health of the troops they should ordinarily not be resorted to except when necessary. The bivouac should be in rear of the position to be held, but near enough to

it to be occupied quickly in case of attack. Cavalry and artillery should not be placed so as to have close country in their front or on their flanks unless such ground is occupied by infantry.

627. When it is possible to exercise a choice the general principles of the selection of sites for camps will apply to bivouacs. The ground should be dry and protected against sun and wind. An ample supply of wood, good water, and hay or straw should be available. Light woods are nearly always good sites for infantry bivouacs on account of the shelter and material they afford.

628. The form of a bivouac should be practically the same as that of a camp, except that less space will be required. As soon as the military situation permits camps should be substituted for bivouacs.

ARTICLE XI.

MEDICAL AND SANITARY SERVICE.

PERSONNEL.

629. The following persons will be employed in the Medical and Sanitary Service in time of war:

(a) Medical officers of the Regular Army, the Volunteer Army, and the organized militia called into the service of the United States.

(b) Surgeons and dental surgeons under contract.

(c) Hospital Corps.

(d) Army Nurse Corps.

(e) Officers and men of the line or staff detailed for duty with the Medical Department.

(f) Officers and men temporarily on duty during or after a battle, engaged in removing the wounded.

(g) Civilian employees as clerks, drivers, laborers, or scavengers.

630. Regiments of whatever arm of the service, and smaller units acting independently, either have their own medical officers and hospital corps detachment, or the prescribed number (paragraph 25) will be assigned. In addition, some of the men in the companies who have been instructed as litter bearers, and members of bands, will be employed during and after engagements under the direction of the regimental surgeon.

631. The service of the authorized private societies for the aid of the sick and wounded may be utilized at the base and on the line of communications—elsewhere in exceptional cases only—under the authority of the commanding general and the chief surgeon. They should be assigned at or before the time of mobilization.

ORGANIZATION.

632. The service of the Medical Department in the field is divided into:

Service of the front, comprising all medical department formations which march with the troops.

Service of the rear, comprising all medical department formations which belong to the army but do not march with it.

633. The lines of medical assistance for an army traced from front to base are as follows:

Front: Regimental aid. Field hospitals, including ambulance company sections. Advanced medical supply depots.

Rear: Stationary hospitals and rest stations on the lines of communications. Base or general hospitals at base of operations. Convalescent camps. Casual camps. Base medical supply depots.

DUTIES IN GENERAL.

634. In the field the Medical Department is charged with the following duties:

(a) The initiation of all hygienic measures to insure the good health of troops.

(b) Management of epidemics among the inhabitants of the country under military control to prevent infection of new territory or of the army.

(c) Care of sick and wounded on the march, in camp, on the field of battle, and after removal therefrom.

(d) Methodical disposition of sick and wounded so as to assure the retention of those effective on the field of battle and to relieve the fighting force of the noneffective.

(e) Transportation of sick and wounded.

(f) Establishment of new hospitals and utilization of old ones sufficient in number and capacity to care for all sick and wounded.

(g) Supply of troops and hospitals with all articles needed for the care of sick and wounded.

(h) Preparation and preservation of individual records of sickness and injury in order that claims may be adjudicated with justice both to the Government and the soldier.

SPECIAL DETAILS.

635. Medical inspectors, selected when possible from among the medical officers of the regular establishment, will be detailed on recommendation of the Surgeon General in the proportion of one to each division.

636. The commanding general of any separate command may detail officers of the line or other staff corps for duty with the Medical Department in the capacity of quartermasters or commissaries of

subsistence, but enlisted men of troops will be detailed to that department only in cases of emergency.

Officers and men so detailed shall be selected for their special fitness for this duty, and shall be examined by a board of medical officers as to their physical condition. Such as are found to be not qualified shall be rejected and others detailed in their stead.

Medical officers will act as acting assistant quartermasters and acting commissaries of hospital ships, hospital trains, general hospitals, field hospitals, and other Medical Department organizations when line officers or officers of the Quartermaster's or Subsistence Departments are not available for such duty.

GUARDS.

637. Guards will be furnished from the line of the Army for hospitals, for medical supply depots, for the protection of medical property, and to insure the safe custody of prisoners.

Field hospitals will habitually be guarded by their ambulance company sections, guards from the line of the Army being detailed only when this is impracticable.

General hospitals will be furnished with the necessary guards by corps, division, or department commanders. These guards will be ordered to report to the commanding officer of the hospital.

Necessary guards for the medical department other than at general hospitals will be furnished by commanding officers, on the application of senior surgeons, who will state what particular instructions they wish given to the guards.

TRANSPORTATION AND SUPPLIES.

638. Articles supplied by other departments, after being properly assigned to the medical department, will be under its exclusive control and command, and will not be diverted from it by commanders subordinate to the authority by which they have been so assigned or by officers of other staff departments.

All transportation which pertains permanently during a campaign to the execution of the duties of the medical department will be assigned to that department.

This will include hospital trains, ships and boats, ambulances, wagons, and all animals, with the crews for working such trains, ships, and boats.

639. Transportation for the temporary use of the medical department, such as wagon trains, railroad trains, and ships and boats for

the removal of wounded, will be reported by the quartermaster in charge to the senior medical officer, under whose orders such transportation will remain until it has completed the special work for which it was assigned to the medical department.

640. Transportation of medical supplies and other supplies for the use of sick and wounded will be performed by the medical department as far as possible with the transportation assigned for the use of that department. Such supplies as can not thus be transported will be invoiced to the Quartermaster's Department for transportation. Medical supplies turned over to the Quartermaster's Department for transportation will, as far as possible, be expedited next after ammunition and rations. When necessary enlisted men of the Hospital Corps will be detailed to accompany medical property.

641. Each company will be provided with a litter by the Quartermaster's Department; it will be carried with company transportation ready for use.

DIRECTION OF SERVICE.

642. Medical officers and men of the hospital corps attached to troops will ordinarily remain under the orders of the officers commanding such troops, but in emergencies the entire medical personnel of the division may be placed at the disposition of its chief surgeon.

Except in battle or emergency, orders in reference to such personnel will pass through the military channel.

Division surgeons may be authorized to make assignments and to issue orders and instructions to medical personnel by order of their commanding general.

SERVICE IN CAMP.

643. In addition to their duties in caring for the sick and wounded, medical officers will, whenever the occasion arises, act as sanitary advisers of commanders of troops. Beginning with assistance in the selection of a camp site and a report on its water supply, they continue their functions in the maintenance of sanitary conditions by frequent inspections and consequent recommendations.

644. In camp, regiments brigaded will establish regimental infirmaries and not regimental hospitals. These infirmaries will care for emergency cases and for those slightly sick or injured. All serious cases will be promptly transferred to field hospitals, which will be located by division surgeons.

Regiments operating independently, or at such great distance from field hospitals that it is impracticable to transfer serious cases

to them, will, under authority of the division surgeon, establish regimental hospitals. These hospitals should have their full personnel and equipment which should always accompany regiments changing base, except in the operations of an active campaign, when the personnel will be assigned and the equipment stored under direction of the division surgeon.

645. Medical inspectors, in addition to their duties in reference to medical department organizations, will carefully investigate the sanitary condition of all troops. When sanitary reforms requiring the sanction or cooperation of military authority are urgently demanded, they will report at once to the officer commanding the corps, department, or division the circumstances and necessities of the case and the measures considered advisable for their relief, forwarding a duplicate of such reports to the chief surgeon, and furnishing to the commanding officer of the troops a written statement of all irregularities and deficiencies observed.

646. When the command moves forward the sanitary personnel of the troops should be promptly relieved by corresponding units from the "service of the rear." In case of retreat the necessary personnel remains with the immobile sick and wounded under protection of the Geneva Convention.

SERVICE ON THE MARCH.

647. The regimental medical officers will habitually accompany their regiment, the senior with the commander at the head, one junior with the ambulance at the rear, the other at the rear of the leading battalion.

648. On ordinary marches the field hospitals will march in rear of the last regiment of the division.

When an engagement is in prospect the personnel for a dressing station, with pack transportation to carry the equipment, will march at the rear of each brigade. With exception of the parts of the ambulance company sections thus detached, the field hospitals will ordinarily march at the rear of the division; but when there are several divisions in one column, one field hospital from each division would usually be held in reserve and march with the "second line" of ammunition columns and trains, that is, a short day's march in rear.

The regimental ambulances will rejoin the ambulance company sections before an engagement.

649. Sick and wounded falling out in line of march will be placed in the regimental ambulance; when this is filled diagnosis tags will

be given as passes to the ambulance train and other transportation, or the weak and foot-sore may be relieved of their equipment and permitted to march in rear of the regimental ambulance.

650. Upon arrival at the day's destination all but the trivial cases will be transferred to the field hospital. Those unable to march next morning will be transferred to stationary hospitals, or they may be left under shelter—in houses if practicable—with the necessary attendance until taken charge of by the medical service of the line of communications, the chief of which should be duly notified.

651. The firearms, individual equipment, and clothing of soldiers who fall out will be carried with them when admitted to the ambulance or hospital.

SERVICE DURING AND AFTER A BATTLE.

652. At the beginning of an engagement, while the troops are deploying, the wounded will be cared for by the regimental surgeons. Those able to walk will be directed to the rear, the others will be taken to sheltered places out of the way of advancing troops.

As the troops take battle formation the officers and men of the regimental sanitary personnel, previously equipped, accompany their organizations.

653. Each officer and man will carefully retain the first-aid packet issued by the regimental surgeon at the beginning of the campaign, and, when wounded, will apply the bandage himself or with the assistance of a comrade.

654. The distribution and work of the regimental hospital corps men will be under the direction of the senior medical officer with the regiment. The band will be utilized as directed by the regimental commander. The wounded will be placed under cover from fire if possible. They will not be taken to the rear at this stage as the regimental personnel must remain in touch with their units.

Diagnosis tags will be attached to all wounded at this or a later stage, whichever may be practicable.

655. The following stations will be established for the care of wounded during battle:

1. Dressing stations.
2. Ambulance stations.
3. Field hospitals.

656. As soon as the advance ceases, dressing stations will be established by dressing-station parties, under the direction of the brigade surgeon, at the nearest points in rear of the line of battle where the wounded will be sheltered from fire. Litter squads are sent out to bring the wounded to the stations.

657. Ambulance stations at the rate of one to a brigade will be established by the brigade surgeon at places affording protection from fire.

658. Helpless wounded brought in during the engagement will be removed to the field hospital, but the principal work of the ambulances begins at the end of the battle and consists in the evacuation of the dressing stations.

659. Such field hospitals as may be required will be established by the division surgeon, after consultation with the division commander if practicable. The site should be at least 3 miles from the front, near a by-road, and on a stream when feasible. An ample supply of water is necessary, and suitable buildings are of great advantage.

660. All of the sanitary personnel will wear the prescribed brassard. Dressing stations, ambulance stations, and field hospitals will be marked by the national and red cross flags; at night by red lanterns.

661. After an engagement it is the duty of commanding officers to organize a thorough search of the battlefield in their vicinity for wounded, and to furnish the necessary assistance for their protection and removal.

The "service of the rear" eventually converts the field hospitals into stationary hospitals, releasing the personnel and material. It takes charge of the care of the sick and wounded and of their transfer to home stations.

MISCELLANEOUS.

662. *Disability.*—No officer, soldier, or civilian physically unfit will be permitted to accompany troops on active service. The commanding officer, upon the approved recommendation of the senior surgeon present, will exclude such persons from participation in active operations and from the formation of expeditionary forces.

663. *Examination.*—A medical officer of the Army, detailed upon the recommendation of the Surgeon-General, will superintend, at camps of mobilization, the physical examination required by law of all the officers and men of the organized militia mustered, or about to be mustered, into the service of the United States.

Troops at regimental camps of organization and instruction will be carefully examined for the presence of contagious disease, including typhoid fever, before their movement to camps of concentration, which shall be contingent on the results of such examination. This examination will be made by a medical officer of the regular establishment when present, otherwise by the senior volunteer medi-

cal officer. In case no contagious disease is found, a certificate to that effect will be made by telegraph to the War Department.

664. No charge will be made for the subsistence of officers, contract surgeons, and contract dental surgeons in field hospitals unless the duration of the stay in such hospitals is longer than forty-eight hours.

When a soldier is admitted to a base, stationary, or general hospital and no descriptive list has been received, the regimental commander will be notified of the fact by the commanding officer of the hospital. The former will then cause the soldier's descriptive list to be sent to the hospital by the man's company commander.

THE GENEVA CONVENTION.

665. The United States and the principal European and other powers, wishing to improve and supplement the provisions agreed upon at Geneva on August 22, 1864, for the amelioration of the condition of the sick and wounded in armies in the field, decided to conclude a new convention to that effect. Accordingly representatives of these countries met at Geneva and on July 6, 1906, signed a new convention. The articles of this convention, which were ratified by the President of the United States January 2, 1907, and proclaimed August 7, 1907, are as follows:

CHAPTER I.—*The sick and wounded.*

ARTICLE 1. Officers, soldiers, and other persons officially attached to armies, who are sick or wounded, shall be respected and cared for, without distinction of nationality, by the belligerent in whose power they are.

A belligerent, however, when compelled to leave his wounded in the hands of his adversary, shall leave with them, so far as military conditions permit, a portion of the personnel and matériel of his sanitary service to assist in caring for them.

ART. 2. Subject to the care that must be taken of them under the preceding article, the sick and wounded of an army who fall into the power of the other belligerent become prisoners of war, and the general rules of international law in respect to prisoners become applicable to them.

The belligerents remain free, however, to mutually agree upon such clauses, by way of exception or favor, in relation to the wounded or sick as they may deem proper. They shall especially have authority to agree:

1. To mutually return the sick and wounded left on the field of battle after an engagement.

2. To send back to their own country the sick and wounded who have recovered, or who are in a condition to be transported and whom they do not desire to retain as prisoners.

3. To send the sick and wounded of the enemy to a neutral state, with the consent of the latter and on condition that it shall charge itself with their internment until the close of hostilities.

ART. 3. After every engagement the belligerent who remains in possession of the field of battle shall take measures to search for the wounded and to protect the wounded and dead from robbery and ill treatment.

He will see that a careful examination is made of the bodies of the dead prior to their interment or incineration.

ART. 4. As soon as possible each belligerent shall forward to the authorities of their country or army the marks or military papers of identification found upon the bodies of the dead, together with a list of names of the sick and wounded taken in charge by him.

Belligerents will keep each other mutually advised of internments and transfers, together with admissions to hospitals and deaths which occur among the sick and wounded in their hands. They will collect all objects of personal use, valuables, letters, etc., which are found upon the field of battle, or have been left by the sick or wounded who have died in sanitary formations or other establishments, for transmission to persons in interest through the authorities of their own country.

ART. 5. Military authority may make an appeal to the charitable zeal of the inhabitants to receive and, under its supervision, to care for the sick and wounded of the armies, granting to persons responding to such appeals special protection and certain immunities.

CHAPTER II.—*Sanitary formations and establishments.*

ART. 6. Mobile sanitary formations (i. e., those which are intended to accompany armies in the field) and the fixed establishments belonging to the sanitary service shall be protected and respected by belligerents.

ART. 7. The protection due to sanitary formations and establishments ceases if they are used to commit acts injurious to the enemy.

ART. 8. A sanitary formation or establishment shall not be deprived of the protection accorded by article 6 by the fact:

1. That the personnel of a formation or establishment is armed and uses its arms in self-defense or in defense of its sick and wounded.
2. That in the absence of armed hospital attendants, the formation is guarded by an armed detachment or by sentinels acting under competent orders.
3. That arms or cartridges, taken from the wounded and not yet turned over to the proper authorities, are found in the formation or establishment.

CHAPTER III.—*Personnel.*

ART. 9. The personnel charged exclusively with the removal, transportation, and treatment of the sick and wounded, as well as with the administration of sanitary formations and establishments, and the chaplains attached to armies, shall be respected and protected under all circumstances. If they fall into the hands of the enemy they shall not be considered as prisoners of war.

These provisions apply to the guards of sanitary formations and establishments in the case provided for in section 2 of article 8.

ART. 10. The personnel of volunteer aid societies, duly recognized and authorized by their own governments, who are employed in the sanitary formations and establishments of armies, are assimilated to the personnel contemplated in the preceding article, upon condition that the said personnel shall be subject to military laws and regulations.

Each state shall make known to the other, either in time of peace or at the opening, or during the progress of hostilities, and in any case before actual employment, the names of the societies which it has authorized to render assistance, under its responsibility, in the official sanitary service of its armies.

ART. 11. A recognized society of a neutral state can only lend the services of its sanitary personnel and formations to a belligerent with the prior consent of its own government and the authority of such belligerent. The belligerent who has accepted such assistance is required to notify the enemy before making any use thereof.

ART. 12. Persons described in articles 9, 10, and 11 will continue in the exercise of their functions, under the direction of the enemy, after they have fallen into his power.

When their assistance is no longer indispensable they will be sent back to their army or country, within such period and by such route as may accord with mili-

tary necessity. They will carry with them such effects, instruments, arms, and horses as are their private property.

ART. 13. While they remain in his power, the enemy will secure to the personnel mentioned in article 9 the same pay and allowances to which persons of the same grade in his own army are entitled.

CHAPTER IV.—*Matériel.*

ART. 14. If mobile sanitary formations fall into the power of the enemy, they shall retain their matériel, including the teams, whatever may be the means of transportation and the conducting personnel. Competent military authority, however, shall have the right to employ it in caring for the sick and wounded. The restitution of the matériel shall take place in accordance with the conditions prescribed for the sanitary personnel, and, as far as possible, at the same time.

ART. 15. Buildings and matériel pertaining to fixed establishments shall remain subject to the laws of war, but can not be diverted from their use so long as they are necessary for the sick and wounded. Commanders of troops engaged in operations, however, may use them, in case of important military necessity, if, before such use, the sick and wounded who are in them have been provided for.

ART. 16. The matériel of aid societies admitted to the benefits of this convention, in conformity to the conditions therein established, is regarded as private property and, as such, will be respected under all circumstances, save that it is subject to the recognized right of requisition by belligerents in conformity to the laws and usages of war.

CHAPTER V.—*Convoys of evacuation.*

ART. 17. Convoys of evacuation shall be treated as mobile sanitary formations subject to the following special provisions:

1. A belligerent intercepting a convoy may, if required by military necessity, break up such convoy, charging himself with the care of the sick and wounded whom it contains.

2. In this case the obligation to return the sanitary personnel, as provided for in article 12, shall be extended to include the entire military personnel employed, under competent orders, in the transportation and protection of the convoy.

The obligation to return the sanitary matériel, as provided for in article 14, shall apply to railway trains and vessels intended for interior navigation which have been especially equipped for evacuation purposes, as well as to the ordinary vehicles, trains, and vessels which belong to the sanitary service.

Military vehicles, with their teams, other than those belonging to the sanitary service, may be captured.

The civil personnel and the various means of transportation obtained by requisition, including railway matériel and vessels utilized for convoys, are subject to the general rules of international law.

CHAPTER VI.—*Distinctive emblem.*

ART. 18. Out of respect to Switzerland the heraldic emblem of the red cross on a white ground, formed by the reversal of the Federal colors, is continued as the emblem and distinctive sign of the sanitary service of armies.

ART. 19. This emblem appears on flags and brassards as well as upon all matériel appertaining to the sanitary service, with the permission of the competent military authority.

ART. 20. The personnel protected in virtue of the first paragraph of article 9, and articles 10 and 11, will wear attached to the left arm a brassard bearing a red cross on a white ground, which will be issued and stamped by competent military authority, and accompanied by a certificate of identity in the case of persons attached to the sanitary service of armies who do not have military uniform.

ART. 21. The distinctive flag of the convention can only be displayed over the sanitary formations and establishments which the convention provides shall be

respected, and with the consent of the military authorities. It shall be accompanied by the national flag of the belligerent to whose service the formation of establishment is attached.

Sanitary formations which have fallen into the power of the enemy, however, shall fly no other flag than that of the Red Cross so long as they continue in that situation.

ART. 22. The sanitary formations of neutral countries which, under the conditions set forth in articles 11, have been authorized to render their services, shall fly, with the flag of the convention, the national flag of the belligerent to which they are attached. The provisions of the second paragraph of the preceding article are applicable to them.

ART. 23. The emblem of the red cross on a white ground and the words *Red Cross* or *Geneva Cross* may only be used, whether in time of peace or war, to protect or designate sanitary formations and establishments, the personnel and matériel protected by the convention.

CHAPTER VII.—*Application and execution of the convention.*

ART. 24. The provisions of the present convention are obligatory only on the contracting powers, in case of war between two or more of them. The said provisions shall cease to be obligatory if one of the belligerent powers should not be signatory to the convention.

ART. 25. It shall be the duty of the commanders in chief of the belligerent armies to provide for the details of execution of the foregoing articles, as well as for unforeseen cases, in accordance with the instructions of their respective governments, and conformably to the general principles of this convention.

ART. 26. The signatory governments shall take the necessary steps to acquaint their troops, and particularly the protected personnel, with the provisions of this convention and to make them known to the people at large.

CHAPTER VIII.—*Repression of abuses and infractions.*

ART. 27. The signatory powers, whose legislation may not now be adequate, engage to take or recommend to their legislatures such measures as may be necessary to prevent the use, by private persons or by societies other than those upon which this convention confers the right thereto, of the emblem or name of the Red Cross or Geneva Cross, particularly for commercial purposes by means of trade-marks or commercial labels.

The prohibition of the use of the emblem or name in question shall take effect from the time set in each act of legislation, and at the latest five years after this convention goes into effect. After such going into effect, it shall be unlawful to use a trade-mark or commercial label contrary to such prohibition.

ART. 28. In the event of their military penal laws being insufficient, the signatory governments also engage to take, or to recommend to their legislatures, the necessary measures to repress, in time of war, individual acts of robbery and ill treatment of the sick and wounded of the armies, as well as to punish, as usurpations of military insignia, the wrongful use of the flag and brassard of the Red Cross by military persons or private individuals not protected by the present convention.

They will communicate to each other through the Swiss Federal Council the measures taken with a view to such repression, not later than five years from the ratification of the present convention.

GENERAL PROVISIONS.

ART. 29. The present convention shall be ratified as soon as possible. The ratifications will be deposited at Berne.

A record of the deposit of each act of ratification shall be prepared, of which a duly certified copy shall be sent, through diplomatic channels, to each of the contracting powers.

ART. 30. The present convention shall become operative, as to each power, six months after the date of deposit of its ratification.

ART. 31. The present convention, when duly ratified, shall supersede the Convention of August 22, 1864, in the relations between the contracting states.

The Convention of 1864 remains in force in the relations between the parties who signed it but who may not also ratify the present convention.

ART. 32. The present convention may, until December 31, proximo, be signed by the powers represented at the conference which opened at Geneva on June 11, 1906, as well as by the powers not represented at the conference who have signed the Convention of 1864.

Such of these powers as shall not have signed the present convention on or before December 31, 1906, will remain at liberty to accede to it after that date. They shall signify their adherence in a written notification addressed to the Swiss Federal Council, and communicated to all the contracting powers by the said Council.

Other powers may request to adhere in the same manner, but their request shall only be effective if, within the period of one year from its notification to the Federal Council, such Council has not been advised of any opposition on the part of any of the contracting powers.

ART. 33. Each of the contracting parties shall have the right to denounce the present convention. This denunciation shall only become operative one year after a notification in writing shall have been made to the Swiss Federal Council, which shall forthwith communicate such notification to all the other contracting parties.

This denunciation shall only become operative in respect to the power which has given it.

In faith whereof the plenipotentiaries have signed the present convention and affixed their seals thereto.

Done at Geneva, the sixth day of July, one thousand nine hundred and six, in a single copy, which shall remain in the archives of the Swiss Confederation and certified copies of which shall be delivered to the contracting parties through diplomatic channels.

THE HAGUE PEACE CONFERENCE.

666. The convention between the United States and certain powers for the adaptation to maritime warfare of the principles of the Geneva Convention, signed at The Hague, July 29, 1899, and published in G. O. No. 4, A. G. O., 1902, is as follows:

ART. I. Military hospital ships, that is to say, ships constructed or assigned by States specially and solely for the purpose of assisting the wounded, sick, or shipwrecked, and the names of which shall have been communicated to the belligerent powers at the beginning or during the course of hostilities, and in any case before they are employed, shall be respected and can not be captured while hostilities last.

These ships, moreover, are not on the same footing as men-of-war as regards their stay in a neutral port.

ART. II. Hospital ships equipped wholly or in part at the cost of private individuals or officially recognized relief societies shall likewise be respected and exempt from capture, provided the belligerent power to whom they belong has given them an official commission and has notified their names to the hostile power at the commencement of or during hostilities, and in any case before they are employed.

These ships should be furnished with a certificate from the competent authorities, declaring that they had been under their control while fitting out and on final departure.

ART. III. Hospital ships, equipped wholly or in part at the cost of private individuals or officially recognized societies of neutral countries, shall be respected

and exempt from capture, if the neutral power to whom they belong has given them an official commission and notified their names to the belligerent powers at the commencement of or during hostilities, and in any case before they are employed.

ART. IV. The ships mentioned in Articles I, II, and III shall afford relief and assistance to the wounded, sick, and shipwrecked of the belligerents independently of their nationality.

The Governments engage not to use these ships for any military purpose.

These ships must not in any way hamper the movements of the combatants.

During and after an engagement they will act at their own risk and peril.

The belligerents will have the right to control and visit them; they can refuse to help them, order them off, make them take a certain course, and put a commissioner on board; they can even detain them, if important circumstances require it.

As far as possible the belligerents shall inscribe in the sailing papers of the hospital ships the orders they give them.

ART. V. The military hospital ships shall be distinguished by being painted white outside with a horizontal band of green about a meter and a half in breadth.

The ships mentioned in Articles II and III shall be distinguished by being painted white outside with a horizontal band of red about a meter and a half in breadth.

The boats of the ships above mentioned, as also small craft which may be used for hospital work, shall be distinguished by similar paint.

All hospital ships shall make themselves known by hoisting, together with their national flag, the white flag with a red cross provided by the Geneva Convention.

ART. VI. Neutral merchantmen, yachts, or vessels, having, or taking on board, sick, wounded, or shipwrecked of the belligerents, can not be captured for so doing, but they are liable to capture for any violation of neutrality they may have committed.

ART. VII. The religious, medical, or hospital staff of any captured ship is inviolable, and its members can not be made prisoners of war. On leaving the ship they take with them the objects and surgical instruments which are their own private property.

This staff shall continue to discharge its duties while necessary, and can afterwards leave when the commander in chief considers it possible.

The belligerents must guarantee to the staff that has fallen into their hands the enjoyment of their salaries intact.

ART. VIII. Sailors and soldiers who are taken on board when sick or wounded, to whatever nation they belong, shall be protected and looked after by the captors.

ART. IX. The shipwrecked, wounded, or sick of one of the belligerents who fall into the hands of the other, are prisoners of war. The captor must decide, according to circumstances, if it is best to keep them or send them to a port of his own country, to a neutral port, or even to a hostile port. In the last case, prisoners thus repatriated can not serve as long as the war lasts.

ART. X. (Excluded.)

ART. XI. The rules contained in the above articles are binding only on the contracting powers in case of war between two or more of them.

The said rules shall cease to be binding from the time when, in a war between the contracting powers, one of the belligerents is joined by a noncontracting power.

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ART. XIV. In the event of one of the high contracting parties denouncing the present convention, such denunciation shall not take effect until a year after the notification made in writing to the Netherlands Government, and forthwith communicated by it to all the other contracting powers.

This denunciation shall only affect the notifying power.

ARTICLE XII.

INSTRUCTIONS FOR THE GOVERNMENT OF ARMIES OF THE UNITED STATES IN TIME OF WAR.^a

SECTION I.—*Military government—Military jurisdiction—Military necessity—Hostilities.*

MILITARY GOVERNMENT.

667. A place, district, or country occupied by an enemy stands in consequence of that fact, under the military government of the invading or occupying army, whether any proclamation declaring the same, or any public warning to the inhabitants, has been issued or not. Military government is the immediate and direct effect and consequence of occupation, which includes only the territory where the authority of the hostile army is established and in a position to be exercised.

The presence of a hostile army proclaims its military government.

668. Military government does not cease during the hostile occupation, except by special proclamation issued by the commander in chief, or by special mention in the treaty of peace terminating the war and stipulating occupation of places or of a territory pending the fulfillment of certain agreements.

669. Military government in a hostile country consists in the suspension, by the occupying military authority, of the domestic administration and government in the place or territory occupied; in the substitution of military rule and force for the same; and in the dictation of general laws, as far as military necessity requires this suspension, substitution, and dictation.

^a Originally prepared by Francis Lieber, LL.D., and published in General Orders, No. 100, Adjutant-General's Office, 1863.

670. Military government applies only to foreign territory and to domestic territory in which enemies, or rebels treated as belligerents, are operating. The military commander is, with rare exceptions, amenable for his acts in accordance with the laws and customs of war only. Military government must be carefully distinguished from martial law, which is of domestic application only; for in the latter case the legality of the acts of a military officer may be questioned not only by his military superiors, but also by the civil tribunals of the territory in which such martial law may be exercised.

671. Military government simply is military authority exercised in accordance with the laws and usages of war. Military oppression is not military government; it is an abuse of the power which the law of war confers. As military government is carried on by military force, it is incumbent upon those who administer it to be strictly guided by the principles of justice, honor, and humanity—virtues adorning a soldier even more than other men, for the very reason that he possesses the power of his arms against the unarmed.

672. Military government should be less stringent in places and countries fully occupied and fairly submissive. Much greater severity may be exercised in places or regions where actual hostilities exist, or are expected and must be prepared for. Its most complete sway is allowed when face to face with the enemy, because of the absolute necessities of the case. Even in the commander's own country the duty of stopping the progress of the invasion and eventually expelling the enemy, rises superior to all ordinary considerations.

673. All civil and criminal law of the places and territories captured from the enemy shall continue to take its usual course under military government, unless, in case of absolute impediment, the same be interrupted or modified by order of the occupying military power; but all the functions of the hostile government—legislative, executive, or administrative—whether of a general, provincial, or local character, cease under military government, or continue only with the sanction, or, if deemed necessary, with the participation of the invader.

The commander of the occupying forces may proclaim that the administration of all civil and criminal law shall, either wholly or in part, continue as in time of peace.

The commanding officer may require the magistrates and other civil officials of the occupied territory to take an oath of temporary allegiance or an oath of fidelity to the victorious government or rulers, as a condition to the continuance of their functions. But whether such oath has been taken or not, the people and their officials owe strict obedience, at the peril of their lives, to the mili-

tary government of the occupying power as long as it holds sway over the district or country.

674. Military government applies to property and to persons, whether the persons are subjects of the enemy or aliens to his country.

675. Consuls, among American, European, and other civilized nations, are not diplomatic agents. Nevertheless, their offices and persons will be subjected to military government in cases of urgent necessity only; their property and business are not exempt. Any delinquency they commit against the established military rule may be punished as in the case of any other inhabitant, and such punishment furnishes no reasonable ground for international complaint.

676. The functions of ambassadors, ministers, or other diplomatic agents accredited by neutral powers to the hostile government cease, so far as regards the displaced government; but the conquering or occupying power usually recognizes them as temporarily accredited to itself.

677. Military government affects chiefly the police of occupied territory and the collection of public revenue, whether at the rate imposed by the expelled government or according to a new scale prescribed by the invader. Its principal object is to provide for the security of the invading army and to contribute to its support and efficiency.

678. Whenever feasible, military government is carried out in cases of individual offenders by military courts. Sentences of death shall be executed only with the approval of the President, provided the urgency of the case does not require a speedier execution, and then only with the approval of the commander in chief.

MILITARY JURISDICTION.

679. Military jurisdiction is of two kinds: First, that which is conferred and defined by statute; second, that which is derived from the common law of war. Military offenses under the statute law must be tried in the manner therein directed; but military offenses which do not come within the statute must be tried and punished under the common law of war. The character of the courts which exercise these jurisdictions depends upon the local laws of each particular country.

In the organized and active land forces of the United States the first is exercised by *courts-martial*, while cases which do not come within the Rules and Articles of War, or the jurisdiction conferred by statute on courts-martial, are tried by *military commissions*.

MILITARY NECESSITY.

680. Military necessity, as understood by modern civilized nations, consists in the urgency of those measures which are indispensable for securing the end of the war, and which are lawful according to the modern law and usages of war.

681. Military necessity admits of all direct destruction of life or limb of *armed* enemies, and of other persons whose destruction is incidentally *unavoidable* in the armed contests of the war; it allows of the capturing of every armed enemy and of every enemy of importance to the hostile government, or of peculiar danger to the captor; it allows of all destruction of property, and obstruction of the ways and channels of traffic, travel, or communication, and of all withholding of sustenance or means of life from the enemy; of the appropriation of whatever an enemy's country affords necessary for the subsistence and safety of the army, and of such deception as does not involve the breaking of good faith, either positively pledged regarding agreements entered into during the war, or supposed by the modern law of war to exist.

682. Military necessity does not admit of cruelty—that is, the infliction of suffering for the sake of suffering or for revenge, nor of maiming or wounding except in fight, nor of torture to extort confessions. It does not admit of the use of poison in any way, nor of the wanton devastation of a district. It admits of deception, but disclaims acts of perfidy; and, in general, military necessity does not include any act of hostility which makes the return to peace unnecessarily difficult.

HOSTILITIES.

683. Public war is a state of armed hostility between states or parts of states. It is a law and requisite of civilized existence that men live in political, continuous societies, forming organized units, called states or nations, whose constituents bear, enjoy, and suffer, advance and retrograde together, in peace and in war.

684. The citizen or native of a hostile country is thus an enemy, as one of the members of the hostile state or nation, and as such is subject to the hardships of war.

685. Nevertheless, as civilization has advanced during the last centuries, so has likewise steadily advanced, especially in war on land, the distinction between the private individual belonging to a hostile country and the hostile country itself, with its men in arms. The principle has been more and more acknowledged that the

unarmed citizen is to be spared in person, property, and honor as much as the exigencies of war will permit.

686. Private citizens are no longer murdered, enslaved, or carried off to distant parts, and the inoffensive individual is as little disturbed in his private relations as the commander of the hostile troops can afford to grant in the overruling demands of a vigorous war.

Any pressure on the population of occupied territory to take an oath of allegiance to the hostile power is prohibited.

687. War is not carried on by arms alone. It is lawful to starve the hostile belligerent, armed or unarmed, so that it leads to the speedier subjection of the enemy.

688. Commanders, whenever admissible, inform the enemy of their intention to bombard a place, so that the noncombatants, and especially the women and children, may be removed before the bombardment commences. But it is no infraction of the common law of war to omit thus to inform the enemy. Surprise may be a necessity.

689. When a commander of a besieged place expels the noncombatants, in order to lessen the number of those who consume his stock of provisions, it is lawful, though an extreme measure, to drive them back, so as to hasten the surrender.

690. The attack or bombardment of towns, villages, habitations, or buildings known to be not defended, is prohibited.

691. The law of war not only disavows all cruelty and all bad faith concerning engagements concluded with the enemy during the war, but also the breaking of stipulations solemnly contracted by the belligerents in time of peace and intended to remain in force in case of war between the contracting powers.

It disclaims all extortions and other transactions for individual gain; all acts of private revenge, or of connivance at such acts.

Offenses to the contrary shall be severely punished—especially so if committed by officers.

692. A belligerent has no right to announce his intention to give no quarter, nor can he refuse to give quarter except in the case of some conduct of the enemy in gross violation of the laws of war, and then only in the way of retaliation for similar acts. Under such extraordinary circumstances troops who give no quarter still have no right to kill enemies already disabled on the ground and who have ceased fighting, or prisoners captured by other troops.

693. All troops of the enemy discovered or positively known to give no quarter in general, or to any portion of our Army, receive none.

694. Detachments of troops who disguise themselves in the uniform of their enemies for the purpose of taking treacherous advantage of the resemblance, can expect no quarter if they be taken in the act.

695. If a commander, under stress of urgent necessity, utilizes articles of uniform captured from the enemy, sufficient dissimilarity in the uniform as a whole must remain to protect troops and individual wearers against the charge of willful deception.

696. Quarter having been given to an individual enemy under misapprehension of his true character, he may nevertheless be ordered to suffer death if within three days after capture it is discovered that he belongs to an organization which is notorious for not giving quarter.

697. The use of the enemy's national standard, flag, or other emblem of nationality for the purpose of deceiving the enemy in battle is an act of perfidy by which the troops resorting to it lose all claim to the protection of the laws of war.

While deception in war is permitted as a necessary means of hostility and is consistent with honorable warfare, the common law of war allows even capital punishment for clandestine or treacherous attempts to injure an enemy, because they are so dangerous and it is so difficult to guard against them.

698. Modern wars are not internecine wars, in which the killing of the enemy is the object. The destruction of the enemy in modern war, and indeed, modern war itself, are means to attain that object of the belligerent which lies beyond the war. Unnecessary or revengeful destruction of life is not lawful.

The law of war does not allow proclaiming either an individual belonging to the hostile army, or a citizen, or a subject of the hostile government, an outlaw, who may be slain without trial by any captor, any more than the modern law of peace allows such intentional outlawry; on the contrary, it abhors such outrage. The sternest retaliation should follow the murder committed in consequence of such proclamation, made by whatever authority. Civilized nations look with horror upon offers of rewards for the assassination of enemies as relapses into barbarism.

699. Firing upon the sentinels of the enemy's outposts, as an individual act, is strictly prohibited. An attack may, however, be made on any part of the enemy's outposts pursuant to the orders of officers, with the express or implied sanction of higher authority.

700. The use of poison in any manner, be it to poison wells, or food, or arms, is wholly excluded from modern warfare. He that uses it puts himself beyond the pale of the law and usages of war.

701. Whoever intentionally inflicts additional wounds on, or kills an enemy already wholly disabled, or who orders or encourages soldiers to do so, shall, if duly convicted, suffer death, whether he belongs to the organized and active land forces of the United States, or is an enemy captured after having committed such a misdeed.

702. The law of war can no more wholly dispense with retaliation than can the law of nations, of which it is a branch. Yet civilized nations acknowledge retaliation as the sternest feature of war. A reckless enemy often leaves to his opponent no other means of securing himself against the repetition of barbarous outrage.

703. Retaliation will, therefore, never be resorted to as a measure of mere revenge, but only as a means of protective retribution, and, moreover, cautiously and unavoidably. The facts in a case having been ascertained with absolute certainty, they may, if practicable, be communicated to the commander of the enemy's forces for such action as he may deem appropriate. If the injury complained of is then repaired, or if satisfactory explanation of the occurrence is offered, with assurance of the continued enforcement of the laws of war and punishment of offenders, all ground for retaliation vanishes.

When reprisals are absolutely necessary they will only be resorted to with the express authority of the general in chief and must not exceed in degree the violation of the law of war committed by the enemy. The methods of retaliation must conform to the laws of humanity and morality; the maximum retribution for the fiendish atrocities of savage and half-civilized enemies is the infliction of death by hanging or shooting.

No general penalty, pecuniary or otherwise, shall be inflicted on the population on account of the acts of individuals for which it can not be regarded as collectively responsible.

Unjust or inconsiderate retaliation removes the belligerents farther and farther from the mitigating rules of regular war, and by rapid steps leads them nearer to the internecine wars of savages.

704. Ever since the formation and coexistence of modern nations, and ever since wars have become great national conflicts, war has come to be acknowledged to be not its own end, but the means of attaining great ends of state, or to consist in defense against wrong.

The more vigorously wars are pursued, the more humane they are in the end; but the law of war imposes many restrictions, based on principles of justice, faith, honor and humanity, on the means and methods adopted to injure the enemy.

SECTION II.—Public and private property of the enemy—Protection of persons, of religion, and of the arts and sciences—Punishment of crimes against the inhabitants of hostile countries.

PUBLIC PROPERTY.

705. A victorious army appropriates all public money, seizes all public movable property and holds the same awaiting instructions from its government, and sequesters for its own benefit or for its government all the revenues of real property belonging to the hostile government or nation. All means of public transportation and communication may be seized and used by the invading army. The destruction of public property, except as demanded by military necessity, is prohibited. The title to public real property remains in abeyance until finally determined in the treaty of peace.

706. As a general rule, churches, hospitals, or other establishments of an exclusively charitable character, and establishments of education or institutions for the promotion of knowledge, such as public schools, universities, academies, observatories, and museums, are not to be considered public property in the sense of paragraph 705; but they may be used when the public service demands it, and the property belonging to them may be taxed.

707. Works of art, libraries, scientific collections, and valuable astronomical and meteorological instruments, as well as hospitals, must be protected against all avoidable damage, even when contained in fortified places undergoing siege. Such works of art, libraries, collections, and instruments will not be removed, except as a measure of retaliation for similar acts. In no case shall they be sold or given away, nor shall they ever be privately appropriated, or wantonly destroyed or injured.

PRIVATE PROPERTY.

708. The United States acknowledges and protects religion and morality; strictly private property; the persons of the inhabitants, especially those of women, and the sacredness of domestic relations. Offenses to the contrary shall be rigorously punished.

This rule does not interfere with the right of the victorious invader to tax the people or their property, to levy forced loans, to billet soldiers, or to appropriate property, especially houses, lands, boats or ships, and churches for temporary and military uses.

709. No tax shall be collected except under a written order and on the responsibility of a commander in chief.

This collection shall only take place, as far as possible, in accordance with the rules in existence and the assessment of taxes in force.

For every payment a receipt shall be given to the taxpayer.

710. Private property, unless forfeited by crimes or by offenses of the owner, can be seized only by way of requisition or when justified by military necessity for the support or other benefit of the army or of the United States.

If the owner has not fled, the commanding officer will cause formal receipts to be given, which may serve the spoliated owner to obtain indemnity.

711. The salaries of civil officers of the occupied territory, such as judges and administrative or police officers, who remain, and with the sanction of the military government continue the work of their office as far as practicable under the circumstances arising out of the war, shall be paid out of the public revenue of the invaded territory; and other necessary expenses of administration shall be provided for out of the same fund.

PUNISHMENT OF CRIMES.

712. There exists no law or body of authoritative rules of action between hostile armies except that branch of the law of nature and nations which is called the law and usages of war on land.

All municipal law of the ground on which the armies stand, or of the countries to which they belong, is silent and of no effect between armies in the field.

713. All wanton violence committed against persons in the invaded country, all destruction of property not commanded by the authorized officer, all robbery, all pillage or sacking, even after taking a place by main force, all rape, wounding, maiming, or killing of such inhabitants are prohibited under the penalty of death, or such other severe punishment as may seem adequate for the gravity of the offense.

A soldier, officer or private, in the act of committing such violence, and disobeying a superior ordering him to abstain from it, may be lawfully killed on the spot by such superior.

714. All captures and booty belong, according to the modern law of war, primarily to the government of the captor.

Neither officers nor soldiers are allowed to make use of their position or power in the hostile country for private gain, nor even for commercial transactions otherwise legitimate. Offenses to the contrary committed by commissioned officers will be punished by dismissal from the military service or by such other punishment as the nature of the offense may require; if by soldiers, they shall be punished according to the nature of the offense.

SECTION III.—*Prisoners of war—Deserters—Hostages.*

PRISONERS OF WAR.

715. A prisoner of war is a person, armed or unarmed, forming part of the hostile army or attached to it for active aid, and who has fallen into the hands of the captor, on the field or in the hospital, by individual surrender or by capitulation.

When thus captured, all soldiers of whatever species of arms; all men belonging to a rising *en masse* of the hostile country; all who are attached to the army for its efficiency and promote directly the object of the war, except persons hereinafter specifically mentioned; all disabled men and officers on the field or elsewhere; all enemies who have thrown away their arms and asked for quarter, are prisoners of war and as such exposed to the inconveniences as well as entitled to the privileges pertaining to that condition.

716. Moreover, civilians who accompany an army for whatever purpose, such as sutlers, contractors, interpreters, and newspaper correspondents, if captured may be detained as prisoners of war.

The head of the hostile government and members, male or female, of its reigning family, the chief officers of the hostile country, its diplomatic agents, and all persons of special use to the hostile army or its government, become prisoners of war if captured on territory not belonging to a neutral power.

717. If the people of a country, or of that portion thereof not yet occupied by the enemy, rise *en masse* under a duly authorized levy to resist the invader, they shall be considered as belligerents if they observe the laws and usages of war, and, in case of capture, shall be treated as prisoners of war.

718. No belligerent has the right to declare that he will treat every captured man in arms of a levy *en masse* as a brigand or bandit.

If, however, the people of a country, or any portion of the same, already occupied by an army, rise against it, they are violators of the laws of war, and are not entitled to their protection.

719. As soon as a man is armed by a sovereign government and takes the soldier's oath of fidelity, he is a belligerent; his killing, wounding, or other warlike acts are not individual crimes or offenses. No belligerent has a right to declare that enemies of a certain class, color, or condition, when properly organized as soldiers, will not be treated by him as public enemies.

720. When sovereign states make war upon each other the law of nations does not inquire into the reasons for such action, and

therefore, in regard to the treatment of prisoners, permits no departure from the rules of regular warfare in case the prisoners belong to the army of a government which the captor considers a wanton and unjust assailant.

721. A prisoner of war is subject to no punishment for being a public enemy, nor is any revenge wreaked upon him by the intentional infliction of any suffering or disgrace, by cruel imprisonment, want of food, by mutilation, death, or any other barbarity.

722. The law of nations knows of no distinction of color, and if an enemy of the United States should enslave and sell any captured persons of their army, it would be a case for the severest retaliation, if not redressed upon complaint.

The United States can not retaliate by enslavement; therefore death must be the retaliation for this crime against the law of nations.

723. A prisoner of war remains answerable for his crimes committed against the captor's army or people, committed before he was captured, and for which he has not been punished by his own authorities.

All prisoners of war are liable to the infliction of retaliatory measures.

724. Money and other valuables on the person of a prisoner, such as watches or jewelry, as well as extra clothing, are to be regarded as the private property of the prisoner, and the appropriation of such valuables or money is considered dishonorable, and is prohibited.

Nevertheless, if *large* sums are found upon the persons of prisoners, or in their possession, they shall be taken from them, and the surplus, after providing for their own support, appropriated for the use of the army, under the direction of the commander, unless otherwise ordered by the government. Nor can prisoners claim, as private property, large sums found and captured in their train, although they may have been placed in the private luggage of the prisoners.

725. All officers, when captured, must surrender their arms to the captor. They may be restored to the prisoner in marked cases, by the commander, to signalize admiration of his distinguished bravery or approbation of his humane treatment of prisoners before his capture. The captured officer to whom they may be restored can not wear them during captivity.

726. A prisoner of war, being a public enemy, is the prisoner of the government, and not of the captor. No ransom can be paid by

a prisoner of war to his individual captor or to any officer in command. The government alone releases captives, according to rules prescribed by itself.

727. Every prisoner of war, if interrogated on the subject, is required to declare his true name and rank, and, in case of infringement of this rule, may be exposed to a restriction of the benefits accorded to prisoners of war of his class.

728. Honorable men, when captured, will abstain from giving to the enemy information concerning their own army, and the modern law of war permits no longer the use of any violence against prisoners in order to extort the desired information or to punish them for having given false information.

729. Prisoners of war are subject to such restriction of liberty as may be deemed necessary on account of safety, but they are to be subjected to no other intentional suffering or indignity. The confinement and mode of treating prisoners may be varied during their captivity according to the demands of safety.

730. The State may utilize the labor of prisoners of war according to their rank and aptitude. Their tasks shall not be excessive, and shall have nothing to do with the military operations.

Prisoners may be authorized to work for the public service, for private persons, or on their own account.

Work done for the State shall be paid for according to the tariffs in force for soldiers of the national army employed on similar tasks.

When the work is for other branches of the public service or for private persons, the conditions shall be settled in agreement with the military authorities.

The wages of the prisoners shall go toward improving their position, and the balance shall be paid them at the time of their release, after deducting the cost of their maintenance.

731. The government into whose hands prisoners of war have fallen is bound to maintain them.

Failing a special agreement between the belligerents, prisoners of war shall be treated as regards food, quarters, and clothing, on the same footing as the troops of the government which has captured them.

732. A prisoner of war who escapes may be shot or otherwise killed in his flight; but neither death nor any other punishment shall be inflicted upon him simply for his attempt to escape, which the law of war does not consider a crime. Stricter means of security may be used after an unsuccessful attempt to escape.

If, however, a conspiracy is discovered, the purpose of which is a united or general escape, the conspirators may be rigorously pun-

ished, even with death; and capital punishment may also be inflicted upon prisoners of war discovered to have plotted rebellion against the authorities of the captors, whether in union with fellow prisoners or with other persons.

733. If prisoners of war, who have given no pledge nor made any promise on their honor, escape forcibly or otherwise, and are captured again in battle after having rejoined their own army, they shall not be punished for their escape, but shall be treated as simple prisoners of war, although they may be subjected to stricter confinement.

734. The obligations of belligerents in respect to the sick and wounded are regulated by the Geneva Convention, which is hereby made part of these instructions and will be fully complied with when the occasion arises.

735. The enemy's medical officers and members of his hospital corps or sanitary service, including the personnel for superintendence, administration and service of ambulances, military hospitals and transport of wounded (by land or by water), and his chaplains, shall be considered neutral and will not be made prisoners of war unless the commander in chief has special reasons for detaining them.

The conduct to be observed toward these persons, and also with respect to ambulances, military hospitals, and hospital trains and ships is prescribed in the articles of the Geneva Convention and the Hague Peace Conference.

736. A bureau for information relative to prisoners of war shall be instituted, on the commencement of hostilities, in each of the belligerent States, and, when necessary, in the neutral countries on whose territory belligerents have been received. This bureau is intended to answer all inquiries about prisoners of war, and is furnished by the various services concerned with all the necessary information to enable it to keep an individual return for each prisoner of war. It is kept informed of internments and changes, as well as of admissions into hospital, and deaths.

It is also the duty of the information bureau to receive and collect all objects of personal use, valuables, letters, etc., found on the battlefields or left by prisoners who have died in hospital or ambulance, and to transmit them to those interested.

737. Relief societies for prisoners of war, which are regularly constituted in accordance with the law of the country with the object of serving as the intermediary for charity, shall receive from the belligerents for themselves and their duly accredited agents every facility, within the bounds of military requirements and adminis-

trative regulations, for the effective accomplishment of their humane task. Delegates of these societies may be admitted to the places of internment for the distribution of relief, as also to the halting places of repatriated prisoners, if furnished with a personal permit by the military authorities, and on giving an engagement in writing to comply with all their regulations for order and police.

738. The information bureau shall have the privilege of free postage. Letters, money orders, and valuables, as well as postal parcels, destined for the prisoners of war or dispatched by them shall be free of all postal duties, both in the countries of origin and destination as well as in those through which they pass.

Gifts and relief in kind for prisoners of war shall be admitted free of all duties of entry and others, as well as of payments for carriage by the government railways.

739. Officers taken prisoners may receive, if necessary, the full pay allowed them in this position by their country's regulations, the amount to be repaid by their government.

740. Prisoners of war shall enjoy every latitude in the exercise of their religion, including attendance at their own church services, provided only they comply with the regulations for order and police issued by the military authorities.

741. The wills of prisoners of war are received or drawn up on the same conditions as for soldiers of the National Army.

The same rules shall be observed regarding death certificates, as well as for the burial of prisoners of war, due regard being paid to their grade and rank.

742. After the conclusion of peace the repatriation of prisoners of war shall take place as speedily as possible.

DESERTERS.

743. Deserters from the organized and active land forces of the United States, having voluntarily entered the service of the enemy, suffer death if they fall again into the power of the United States, whether by capture or by being delivered up. If a deserter from the enemy, having taken service in the Army of the United States, is captured by the enemy and punished with death or otherwise, it is not a breach of the laws and usages of war, and does not call for redress or retaliation.

HOSTAGES.

744. A hostage is a person accepted as a pledge for the fulfillment of an agreement concluded between belligerents during a war or in

consequence of a war. Such hostages are rare in the present age between civilized powers.

If a hostage is accepted, he is treated like a prisoner of war, according to rank and condition, as circumstances may permit.

The right to take hostages may also be exercised by seizing locally influential persons and holding them as security against damage to railroads, telegraph lines, bridges, tunnels, etc., on the line of communications, by hostile inhabitants.

When the conduct of a hostile population in occupied territory amounts to guerrilla warfare, resorting to assassination of soldiers and intimidation or murder of citizens disposed to be loyal, hostages may be required to march at the head of detachments of troops, and they may be held subject to retaliation after due warning.

SECTION IV.—Partisans—Armed enemies not belonging to the hostile army—Scouts—Armed prowlers—War rebels.

PARTISANS.

745. Partisans are soldiers armed and wearing the uniform of their army, but belonging to a corps which acts detached from the main body for the purpose of making inroads into the territory occupied by the enemy. If captured, they are entitled to all the privileges of the prisoner of war.

GUERRILLAS.

746. Men or groups of men who commit hostilities, whether by fighting, by inroads for destruction or plunder, or by raids of any kind, without commission, without being part and portion of the organized hostile army, and without sharing continuously in the war, but who do so with intermitting returns to their homes and avocations, or with the occasional assumption of the semblance of peaceful pursuits, divesting themselves of the appearance of soldiers and again assuming it when it serves their purposes—such men or groups of men are not entitled to the privileges of prisoners of war, but shall be treated summarily as highway robbers or pirates.

In the absence of general instructions or special orders on this subject from higher authority, the commanding officer on the spot becomes responsible for suitable action whenever such men are caught in the act or when there is no reasonable doubt of their guilt. Before enforcing the death penalty the commanding officer,

in order to protect himself against possibility of error, may convene a board of three officers to ascertain the facts, with names of witnesses, and later submit the same with report of action to his immediate superior. If three officers be not available, the board may consist of two, or even one. If the commanding officer be the only officer present, such record shall form part of his report. When such immediate example is not deemed necessary, the culprit may be confined and formal charges forwarded as a basis for trial by a military commission, provided that the exigencies of the campaign do not render such course impracticable.

747. Armed prowlers who penetrate within the lines of a hostile army for the purpose of killing, robbing, or committing other crimes of violence, or inhabitants of an occupied territory who commit such crimes shall be punished by a military commission according to the nature and degree of their offense. In extreme cases, when caught in the act of committing capital crimes, they may be summarily dealt with as prescribed in the preceding paragraph.

When the acts committed are in the nature of hostilities, such as destruction of bridges, roads, railroads, or canals, carrying off or destruction of the mail, or cutting telephone or telegraph wires, the commanding general of the district will have recourse to such measures of repression—even to the extent of summary execution, under the restrictions stated in paragraph 746—as may be necessary to protect the lines of communication.

748. Scouts or single soldiers, if disguised in civilian dress or otherwise, or in the uniform of the army hostile to their own, if found within or lurking about the lines of the captor, are treated as spies, and suffer death upon conviction before a military commission.

WAR REBELS.

749. War rebels are persons within an occupied territory who rise in arms against the occupying or conquering army, or against the authorities established by the same. If captured, they may suffer death, whether they rise singly, in small, or large bands, and whether called upon to do so by their own, but expelled, government or not. They are not prisoners of war; nor are they if discovered and secured before their conspiracy has matured to an actual rising or armed violence. The proper course of procedure against them is trial by a military commission.

SECTION V.—*Safe-conduct—Spies—War traitors—Guides.*

SAFE-CONDUCT.

750. All intercourse between the territories occupied by belligerent armies, whether by traffic, written or printed correspondence, cable, telegraph, telephone, or wireless telegraphy, or in any other way, ceases. This is the general rule to be observed without special proclamation.

Exceptions to this rule, whether by safe-conduct or by permission to trade on a small or large scale, or by exchanging mails, or by travel from one territory into the other, or by other methods of communication, can take place only according to agreement approved by the government, or by sanction of the highest military authority.

Violation of this rule of nonintercourse is highly punishable.

751. Ambassadors, and all other diplomatic agents of neutral powers, accredited to the enemy, may receive safe-conducts through the territories occupied by the belligerents, unless there are military reasons to the contrary, and unless they can reach the place of their destination conveniently by another route. It implies no international affront if safe-conduct is refused. Such passes are usually given by the supreme authority of the State, and not by subordinate officers.

SPIES.

752. A spy is a person who secretly, in disguise or under false pretenses, obtains, or seeks to obtain, information in the zone of operations of a belligerent with the intention of communicating it to the enemy.

753. Soldiers not in disguise who have penetrated into the zone of operations of a hostile army for the purpose of obtaining information are not considered spies. Similarly, soldiers or civilians carrying out their mission openly, charged with the delivery of dispatches destined either for their own army or that of the enemy, and likewise the individuals sent in balloons to deliver dispatches or to maintain communication between the various parts of an army or a territory, shall not be considered spies.

754. A spy is punishable with death by hanging by the neck, whether or not he succeed in obtaining the information or in conveying it to the enemy.

A spy taken in the act shall not be punished until after trial and conviction.

755. Spies, war traitors, and war rebels are not exchanged according to the common law of war. The exchange of such persons would require a special cartel, authorized by the government, or, at a great distance from it, by the chief commander of the army in the field.

756. A successful spy or war traitor, safely returned to his own army and afterwards captured as an enemy, is not subject to punishment for his acts as a spy or war traitor, but he may be held in closer custody as a person individually dangerous.

757. If a citizen of the United States, be he a military or civil officer or a private citizen, obtains information of military value and betrays it to the enemy, he shall, upon conviction, suffer death.

WAR TRAITORS.

758. A traitor under the law of war, or a war traitor, is a person in a place or district under military government who, unauthorized by the military commander, gives information of any kind to the enemy, or holds intercourse with him.

759. A war traitor is always severely punished. If his offense consists in betraying to the enemy anything concerning the condition, safety, operations, or plans of the troops holding or occupying the place or district, his punishment is death.

760. If a citizen of occupied territory gives information to his own government or its army, being separated therefrom by the hostile army, he is a war traitor, and, upon conviction, death is the usual penalty for his offense.

761. The law of war, like the criminal law regarding other offenses, makes no distinction on account of the difference of sexes concerning the spy, the war traitor, or the war rebel.

762. All unauthorized or secret communication with the enemy is considered treasonable by the law of war.

Foreign residents in an invaded or occupied territory, or foreign visitors in the same, can claim no immunity from this law. They may communicate with foreign parts, or with the inhabitants of the hostile country, so far as the military authority permits, but no further. Instant expulsion from the occupied territory would be the very least punishment for the infraction of this rule.

GUIDES.

763. All armies in the field stand in need of guides, and impress them if they can not obtain them otherwise.

No person having been forced by the enemy to serve as guide is punishable for having done so.

764. If a citizen of a hostile and invaded district voluntarily serves as a guide to the enemy, or offers to do so, he is deemed a war traitor, and shall suffer death.

765. A citizen serving voluntarily as a guide against his own country commits treason, and will be dealt with according to the law of his country.

766. Guides, when it is clearly proved that they have misled intentionally, may be put to death.

SECTION VI.—*Exchange of prisoners—Flags of truce—Flags of protection.*

767. Exchanges of prisoners take place number for number, rank for rank, wounded for wounded, with added condition for added condition—such, for instance, as not to serve for a certain period.

768. In exchanging prisoners of war, such numbers of persons of inferior rank may be substituted as an equivalent for one of superior rank as may be agreed upon by cartel, which requires the sanction of the government or of the commander of the army in the field.

769. The surplus number of prisoners of war remaining after an exchange has taken place is sometimes released either for the payment of a stipulated sum of money, or, in urgent cases, of provisions, clothing, or other necessaries.

Such arrangement, however, requires the sanction of the highest authority.

770. The exchange of prisoners of war is an act of convenience to both belligerents. If no general cartel has been concluded, it can not be demanded by either of them. No belligerent is obliged to exchange prisoners of war.

A cartel is voidable as soon as either party has violated it.

771. No exchange of prisoners shall be made except after complete capture, and after an accurate account of them, and a list of the captured officers, has been taken.

FLAGS OF TRUCE.

772. An individual who is authorized by one of the belligerents to enter into communication with the other, and who carries a white flag, is considered as a bearer of a flag of truce. He has a right to inviolability, as well as the trumpeter, bugler, or drummer, the flag bearer and the interpreter who may accompany him.

773. The bearer of a flag of truce can not insist upon being admitted. He must always be admitted with great caution. Unnecessary frequency is carefully to be avoided.

774. If the bearer of a flag of truce offers himself during an engagement, he can be admitted as a very rare exception only. It is no breach of good faith to retain such flag of truce, if admitted during the engagement. Firing is not required to cease on the appearance of a flag of truce in battle.

775. If the bearer of a flag of truce, presenting himself during an engagement, is killed or wounded, it furnishes no ground of complaint whatever.

776. If it be discovered, and fairly proved, that a flag of truce has been abused for surreptitiously obtaining military knowledge, the bearer of the flag thus abusing his sacred character is deemed a spy.

So sacred is the character of a flag of truce, and so necessary is its sacredness, that while its abuse is an especially heinous offense, great caution is requisite, on the other hand, in convicting the bearer of a flag of truce as a spy.

FLAGS OF PROTECTION.

777. Dressing stations, ambulance stations, and hospitals of whatever description, or buildings temporarily used as such, whether in besieged places, on or near the line of battle, or on the line of communications, are designated by hoisting the national flag and the red cross flag of the Geneva Convention.

Honorable belligerents will abstain from inflicting intentional damage on establishments thus designated and will be guided by such flags of protection as much as the contingencies of the fight will permit.

778. It is justly considered an act of bad faith, of infamy or fiendishness, to deceive an enemy by improper use of flags of protection, especially of white flags and of the red-cross flags reserved to designate medical establishments. Such acts of bad faith call for notification to the commander of the hostile forces and to his Government, and severe punishment of the responsible officers.

When in occupied territory treacherous use is made of such flags by inhabitants to convey information to guerrillas or detachments of the enemy's forces, such act is doubly reprehensible and justifies instant application of severe measures.

779. The besieging belligerent may request the besieged to designate observatories, precious libraries, scientific museums, and buildings containing collections of works of art, so that their destruction may be avoided as far as practicable.

SECTION VII.—*The parole.*

780. Prisoners of war may be released from captivity by exchange, and, under certain circumstances, also by parole.

781. The term "parole" designates the pledge of individual good faith and honor to do, or to omit doing, certain acts after he who gives his parole shall have been released, or the conditions of his confinement modified.

782. The pledge of the parole is always an individual, but not a private act.

783. The parole applies chiefly to prisoners of war whom the captor allows to return to their country, or to live in greater freedom within the captor's country or territory, on conditions stated in the parole.

784. Release of prisoners of war by exchange is the general rule; release by parole is the exception.

785. Breaking the parole is punished with death when the person breaking the parole is recaptured after again serving in the enemy's forces.

Accurate lists, therefore, of the paroled persons must be kept by the belligerents.

786. When paroles are given and received there must be an exchange of two written documents, in which the name and rank of the paroled individuals are accurately and truthfully stated.

787. Commissioned officers only are allowed to give their parole, and they can give it only with the permission of their superior, as long as a superior in rank is within reach.

788. No noncommissioned officer or private can give his parole except through an officer. Individual paroles not given through an officer are not only void, but subject the individuals giving them to the punishment of death as deserters. The only admissible exception is where individuals, properly separated from their commands, have suffered long confinement without the possibility of being paroled through an officer.

789. No paroling on the battlefield; no paroling of entire bodies of troops after a battle; and no dismissal of large numbers of prisoners, with a general declaration that they are paroled, is permitted, or of any value.

790. In capitulations for the surrender of strong places or fortified camps the commanding officer, in cases of urgent necessity, may agree that the troops under his command shall not fight again during the war, unless exchanged.

791. The usual pledge given in the parole is not to serve during the existing war, unless exchanged.

This pledge refers only to the active service in the field against the paroling belligerent or his allies actively engaged in the same war. These cases of breaking the parole are patent acts and can be visited with the punishment of death; but the pledge does not refer to internal service, such as recruiting or drilling the recruits, fortifying places not besieged, quelling civil commotions, fighting against belligerents unconnected with the paroling belligerents, or to civil or diplomatic service in which the paroled officer may be employed.

792. If the government does not approve of the parole the paroled officer must return into captivity; should the enemy refuse to receive him he is free of his parole.

793. A belligerent government may declare by a general order whether it will allow paroling, and on what conditions. Such order is communicated to the enemy.

794. No prisoner of war can be forced by the hostile government to parole himself, and no government is obliged to parole prisoners of war, or to parole all captured officers, if it paroles any. As the pledging of the parole is an individual act, so is paroling, on the other hand, an act of choice on the part of the belligerent.

795. The commander of an occupying army may require of the civil officers of the enemy, and of its citizens, any pledge he may consider necessary for the safety or security of his army, and upon their failure to give it he may arrest, confine, or detain them.

SECTION VIII.—*Armistice—Capitulation.*

796. An armistice is the cessation of active hostilities for a period agreed upon between belligerents. The agreement must be in writing and duly ratified by the highest authorities of the contending parties.

797. If an armistice be declared without conditions, it extends no further than to require a total cessation of hostilities along the front of both belligerents.

If conditions be agreed upon, they should be clearly expressed, and must be rigidly adhered to by both parties. If either party violates any express condition, the armistice may be declared null and void by the other.

798. An armistice may be general, and valid for all points and lines of the belligerents; or special, that is, referring to certain troops or certain localities only.

An armistice may be concluded for a definite time, or for an indefinite time, during which either belligerent may resume hostilities on giving the notice agreed upon to the other.

799. The motives which induce belligerents to conclude an armistice, whether it be intended as a preliminary to a treaty of peace or to prepare for more vigorous prosecution of the war, in no way affect the character of the armistice itself.

800. An armistice is binding upon the belligerents from the day of the agreed commencement; but the officers of the armies are responsible from the day only when they receive official information of its existence.

801. Commanding generals have the right to conclude armistices binding on the district over which their command extends, but such armistice is subject to the ratification of the superior authority, and ceases so soon as it is made known to the enemy that the armistice is not ratified, even if a certain time for the elapsing between giving notice of cessation and the resumption of hostilities should have been stipulated for.

802. An armistice is not a partial or a temporary peace; it is only the suspension of military operations to the extent agreed upon by the parties.

803. When an armistice is concluded between a fortified place and the army besieging it, it is agreed by all the authorities on this subject that the besieger must stop all extension, perfection, or advance of his works, as well as desist from attacks by main force.

But as there is a difference of opinion among martial jurists whether the besieged have the right to repair breaches or to erect new works of defense within the place during an armistice, this point should be determined by express agreement between the parties.

804. When an armistice is clearly broken by one of the parties the other party is released from all obligation to observe it.

805. Prisoners taken in the act of breaking an armistice must be treated as prisoners of war, the officer alone being responsible who gives the order for such a violation of armistice. The highest authority of the belligerent aggrieved may demand redress for the infraction of an armistice.

806. Belligerents sometimes conclude an armistice while their plenipotentiaries are met to discuss the conditions of a treaty of peace, but plenipotentiaries may meet without a preliminary armistice; in the latter case the war is carried on without any abatement.

807. It is incumbent upon the contracting parties of an armistice to stipulate what intercourse of persons or traffic between the inhab-

itants of the territories occupied by the hostile armies shall be allowed, if any.

If nothing is stipulated the intercourse remains suspended, as during actual hostilities.

808. As soon as a capitulation is signed the capitulator has no right to demolish, destroy, or injure the works, arms, stores, or ammunition in his possession, during the time which elapses between the signing and the execution of the capitulation, unless otherwise stipulated in the same.

SECTION IX.—*Insurrection—Civil war—Rebellion.*

809. Insurrection is the rising of people in arms against their government, or a portion of it, or against one or more of its laws, or against an officer or officers of the government. It may be confined to mere armed resistance, or it may have greater ends in view.

810. Civil war is war between two or more portions of a country or State, each contending for the mastery of the whole, and each claiming to be the legitimate government. The term is also sometimes applied to war of rebellion, when the rebellious provinces or portions of the State are contiguous to those containing the seat of government.

811. The term rebellion is applied to an insurrection of large extent, and is usually a war between the legitimate government of a country and portions or provinces of the same who seek to throw off their allegiance to it and set up a government of their own.

812. When humanity induces the adoption of the rules of regular war toward rebels, whether the adoption is partial or entire, it in no way implies a partial or complete acknowledgment of their government, if they have set up one, or of their existence as an independent and sovereign power. Neutrals have no right to make the adoption of the rules of war by the assailed government toward rebels the ground of their own acknowledgment of the revolted people as an independent power.

813. Treating captured rebels as prisoners of war, exchanging them, concluding of cartels, capitulations, or other warlike agreements with them, addressing officers of a rebel army by the rank they may have in the same, accepting flags of truce, or, on the other hand, proclaiming military government in their territory, or levying war taxes or forced loans, or doing any other act sanctioned or demanded by the law and usages of public war between sovereign belligerents, neither proves nor establishes an acknowledgment of

the rebellious people, or of the government which they may have erected, as a public or sovereign power. Nor does the adoption of the rules of war toward rebels imply an engagement with them extending beyond the limits of these rules. It is victory in the field that ends the strife and settles the future relations between the contending parties.

814. Treating the rebellious enemy in the field according to the law and usages of war, has never prevented the legitimate Government from trying the leaders of the rebellion or chief rebels for high treason and from treating them accordingly, unless they are included in a general amnesty.

815. All enemies in regular war are divided into two general classes—that is to say, into combatants and noncombatants, or unarmed citizens of the hostile Government.

The military commander of the legitimate Government, in a war of rebellion, distinguishes between the loyal citizen in the revolted portion of the country and the disloyal citizen. The disloyal citizens may further be classified into those citizens known to sympathize with the rebellion without positively aiding it; and those who, without taking up arms, give positive aid and comfort to the rebellious enemy without being bodily forced thereto.

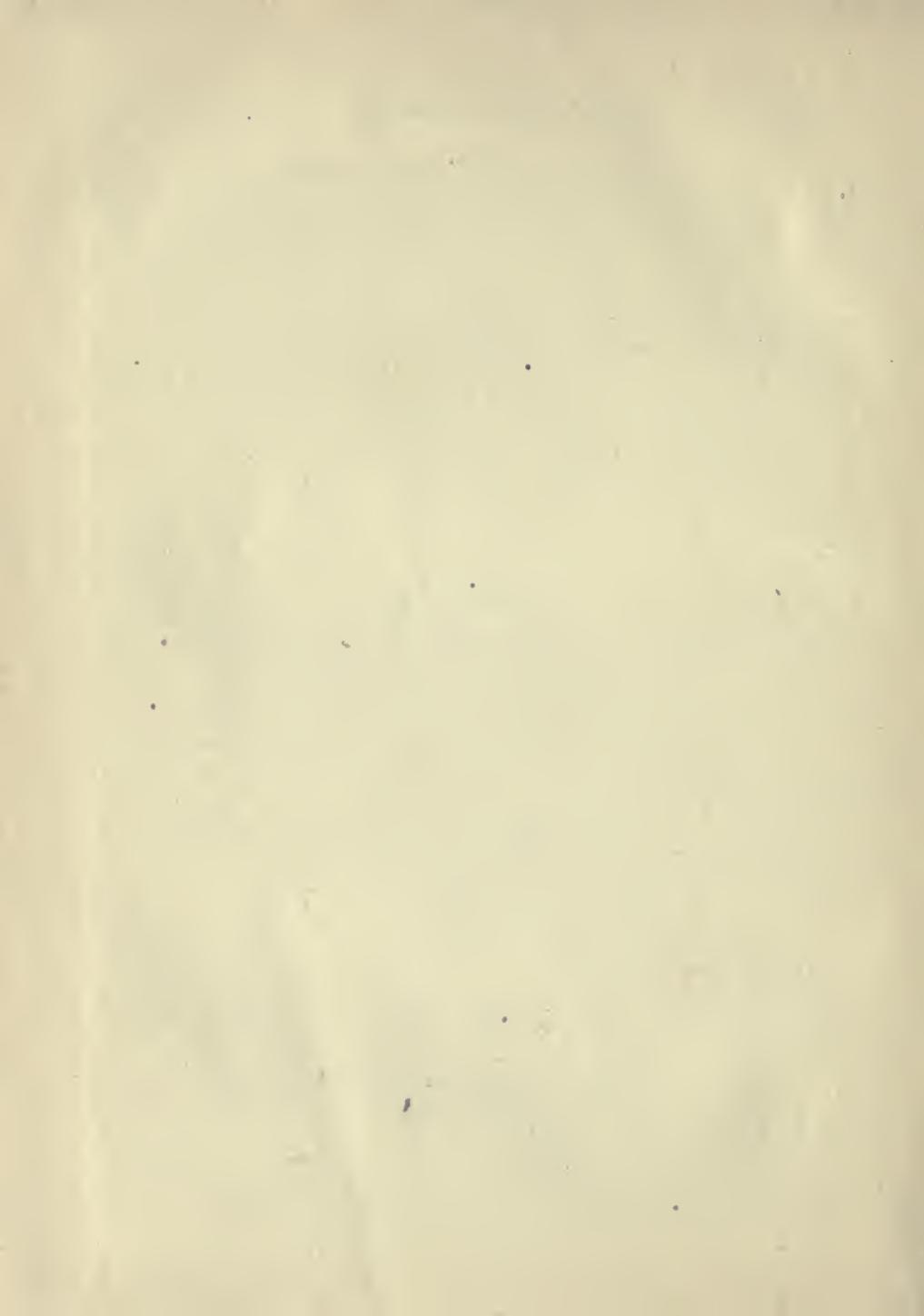
816. Common justice and plain expediency require that the military commander protect the manifestly loyal citizens in revolted territories against the hardships of the war as much as the common misfortune of all war admits.

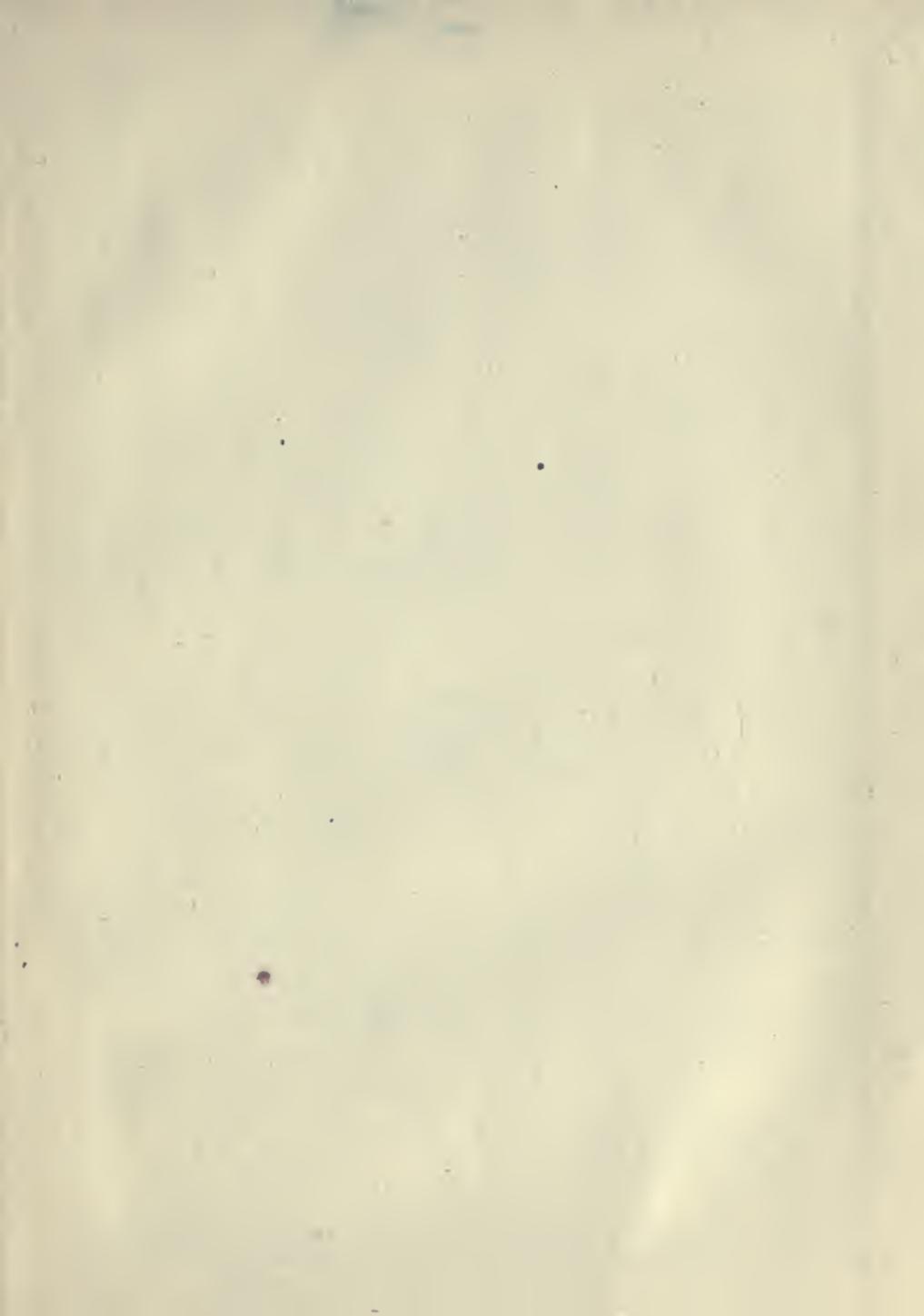
The commander will throw the burden of the war, as much as lies within his power, on the disloyal citizens of the revolted portion or province, subjecting them to a stricter police than the noncombatant enemies have to suffer in regular war; and if he deems it appropriate, or if his Government demands of him that every citizen shall, by an oath of allegiance, or by some other manifest act, declare his fidelity to the legitimate Government, he may expel, transfer, imprison, or fine the revolted citizens who refuse to pledge themselves anew as citizens obedient to the law and loyal to the Government.

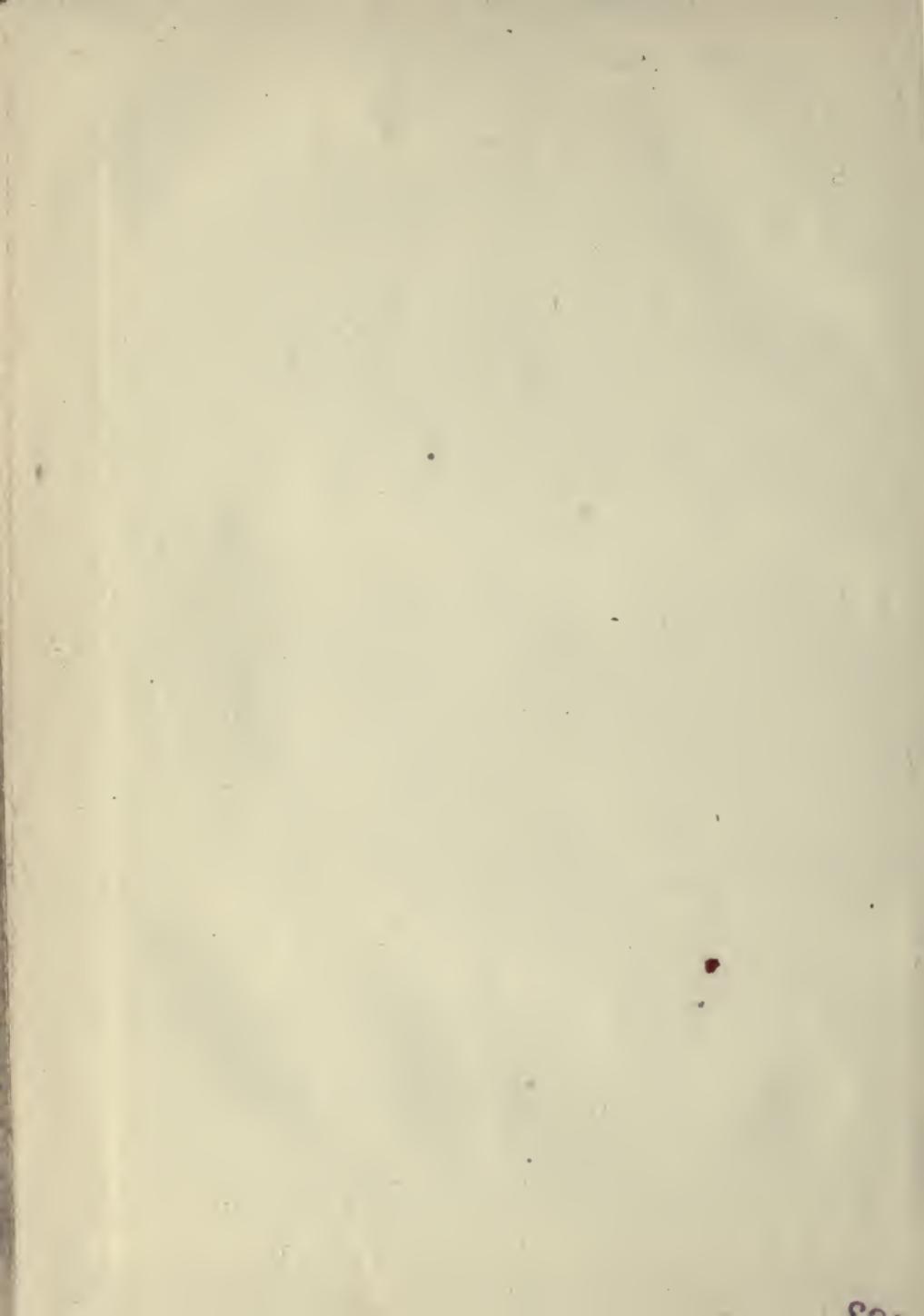
Whether it is expedient to do so, and whether reliance can be placed upon such oaths, the commander or his Government has the right to decide.

817. Armed or unarmed resistance by citizens of the United States against the lawful movements of their troops is levying war against the United States and is therefore treason.











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